

LEGAL DESCRIPTION

(PER FIDELITY NATIONAL TITLE ORDER NO. 611098520, DATED 03/19/15.)

LOTS 10 AND 11, BLOCK 2, STRONG'S HIGHLAND DRIVE ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 21 OF PLATS, PAGE 75, RECORDS OF KING COUNTY, WASHINGTON, LESS STREET;

AND EXCEPT THAT PORTION OF LOT 11 DESCRIBED AS FOLLOWS:

BEGINNING ON THE WESTERLY LINE OF SAID LOT 11 AT A POINT 10.00 FEET NORTHERLY OF THE SOUTHWEST CORNER THEREOF;

THENCE SOUTH 20° 32' 00" WEST 10.00 FEET TO THE SOUTHWEST CORNER OF SAID LOT 11 A DISTANCE OF 80.00 FEET;

THENCE SOUTH 62° 53' 10" EAST ALONG THE SOUTHERLY LINE OF SAID LOT 11 A DISTANCE OF 80.00 FEET;

THENCE NORTH 55° 54' 24" WEST 81.75 FEET MORE OR LESS TO THE TRUE POINT OF BEGINNING, SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SURVEYORS NOTE:

FIDELITY NATIONAL TITLE INSURANCE COMPANY WILL NOT BE ABLE TO PROVIDE A LEGAL DESCRIPTION UNTIL 4/27/2015. THE LEGAL DESCRIPTION PROVIDED DID NOT INCLUDE LOT 9 AND VACATED ALLEY WAY, AND THE SOUTH LINE OF LOT 11 DID NOT REFLECT LOT LINE ADJUSTMENT AS PER RECORDING NO. 20101227900003. THE BOUNDARY AS SHOWN REFLECTS WHAT WE BELIEVE TO INCLUDE VACATED ALLEY WAY AND EXCEPTING THE LOT LINE ADJUSTMENT RECORDED.

PARCEL DATA

TAX PARCEL NO. 8056000090 AND 8056000085

OWNER: MICHAEL BRUCE

SITE ADDRESS:
106 97TH AVENUE NE
BELLEVUE, WA. 98004

PARCEL AREAS:
APN. 8056000085 - LOT 9:
9,972.7± SQ. FT.
0.23 ACRES

APN. 8056000090 LOTS 10 & 11:
20,387.8± SQ. FT.
0.47 ACRES

GENERAL NOTES:

THE BURIED UTILITIES SHOWN HEREON (IF ANY) REFLECT SURFACE EVIDENCE, SUPPLEMENTED WITH FOUND UTILITY LOCATION MARKINGS. ANY UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE TO BE CONSIDERED APPROXIMATE ONLY. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN, CONTACT THE APPROPRIATE UTILITY COMPANY. PRIOR TO ANY CONSTRUCTION CALL THE UNDERGROUND UTILITIES LOCATION CENTER AT 1-800-424-5555 OR 811.

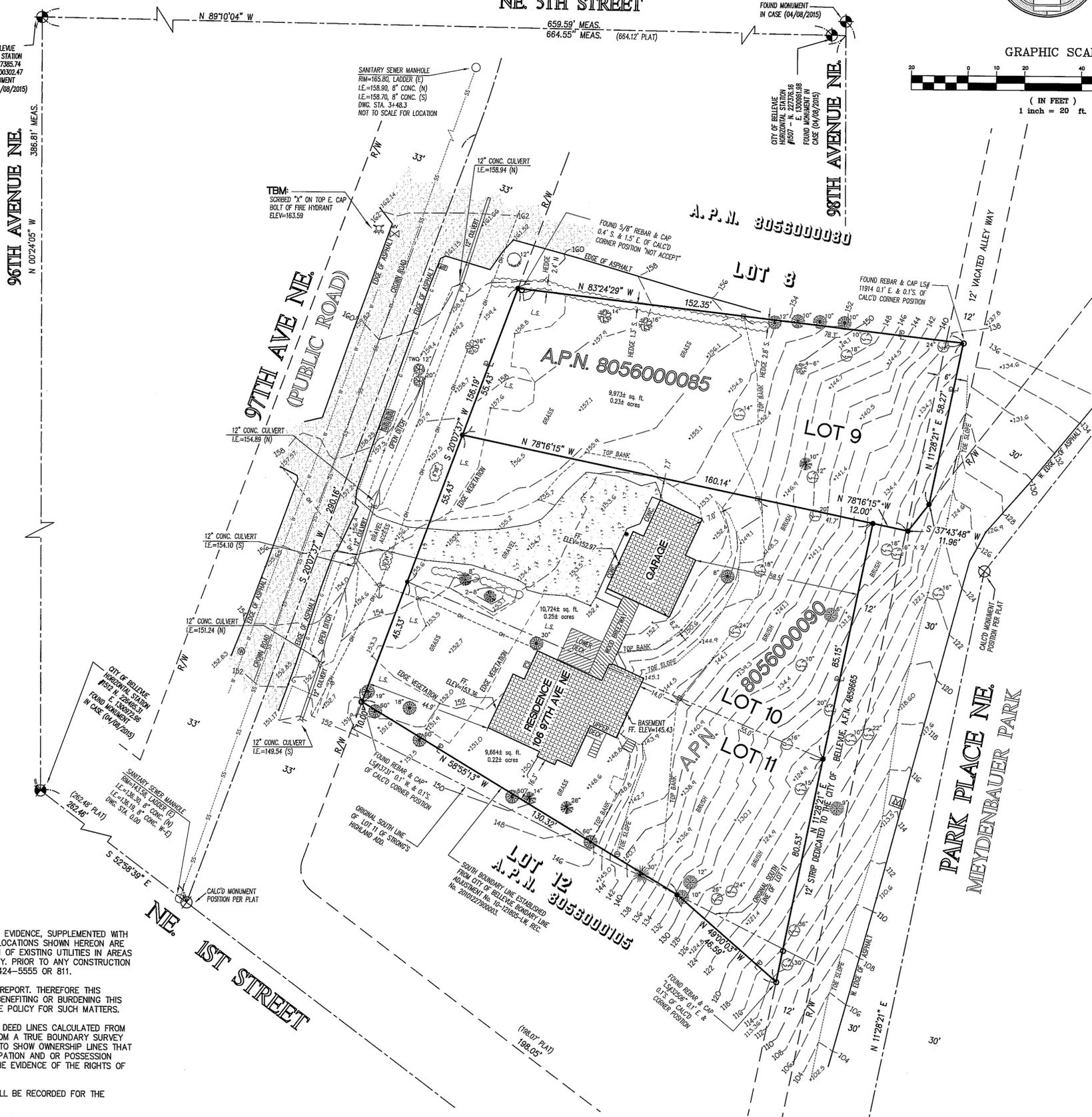
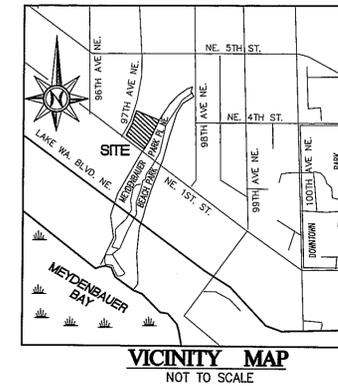
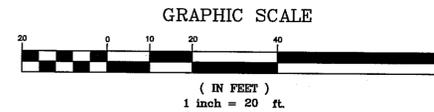
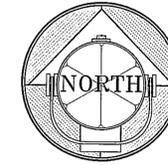
THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. THEREFORE THIS SURVEY DOES NOT PURPORT TO SHOW ANY OR ALL EASEMENTS BENEFITING OR BURDENING THIS SITE UNLESS OTHERWISE NOTED. CONSULT YOUR TITLE INSURANCE POLICY FOR SUCH MATTERS.

THE BOUNDARY POSITION DEPICTED ON THIS SURVEY REPRESENTS DEED LINES CALCULATED FROM AVAILABLE PUBLIC SOURCES. THIS POSITION MAY ALSO DIFFER FROM A TRUE BOUNDARY SURVEY OF THIS PROPERTY. THE POSITION DEPICTED DOES NOT PURPORT TO SHOW OWNERSHIP LINES THAT MAY OTHERWISE BE DETERMINED BY A COURT OF LAW. THE OCCUPATION AND OR POSSESSION UPON OR ACROSS THE SUBJECT PARCELS DEED BOUNDARY MAY BE EVIDENCE OF THE RIGHTS OF OTHERS.

PRECEDING THIS TOPOGRAPHIC SURVEY A RECORD OF SURVEY WILL BE RECORDED FOR THE SUBJECT PROPERTY IN KING COUNTY RECORDS DEPARTMENT.

A DIGITAL COPY OF THIS MAP IS BEING PROVIDED ALONG WITH THE SIGNED PAPER COPY. THE SIGNED PAPER COPY IS THE ORIGINAL AND CONTROLS IN THE EVENT OF DIFFERENCES. THE DIGITAL COPY HAS BEEN PROVIDED MERELY FOR THE CONVENIENCE OF THE CLIENT. COPYRIGHT PRIZM SURVEYING INC.

**106 97TH AVENUE N.E.
BOUNDARY - TOPOGRAPHIC SURVEY**
A PORTION OF THE NORTHEAST 1/4 OF SECTION 31, TOWNSHIP 25 NORTH, RANGE 5 EAST, W.M.,
CITY OF BELLEVUE, COUNTY OF KING, STATE OF WASHINGTON



BASIS OF BEARINGS

NAD 83/2011
CITY OF BELLEVUE DATABASE HORIZONTAL CONTROL MONUMENTS NO.(S) 1503 AND 1507.

METHODS AND EQUIPMENT

SURVEY PERFORMED WITH A 3" TOTAL STATION, USING TRAVERSE AND RADIAL SURVEY METHODS. THIS SURVEY MEETS OR EXCEEDS ACCURACY REQUIREMENTS CONTAINED IN WAC 332.130.090.

VERTICAL DATUM

(NAVD-88)
BENCHMARK: CITY OF BELLEVUE BENCHMARK NO. 286 (CITY OF BELLEVUE CASD MONUMENT), LOCATED CENTERLINE OF LAKE WASHINGTON BLVD. NE/ NW. OF HOUSE # 9621.
PUBLISHED ELEVATION = 113.36 FEET

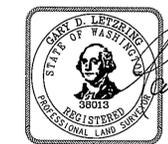
LEGEND

- MONUMENT FOUND AS NOTED
- CALCULATED MONUMENT FROM RECORD
- SET 5/8" REBAR & CAP L# 38013
- FOUND REBAR & CAP AS NOTED
- UTILITY COVER
- FIRE HYDRANT
- WATER VALVE
- UTILITY POLE/GUY ANCHOR
- YARD DRAIN
- SANITARY SEWER MANHOLE
- GAS METER
- FINISHED FLOOR
- SPOT ELEVATION
- CENTERLINE
- PROPERTY LINE
- LANDSCAPING
- CULVERT
- OVERHEAD WIRES
- UNDERGROUND SANITARY SEWER MAIN (SEE NOTE #1)
- UNDERGROUND GAS MAIN (SEE NOTE #1)
- UNDERGROUND WATER MAIN (SEE NOTE #1)
- PLAT RECORD DISTANCE
- CONC. CONCRETE
- WATER MANHOLE
- MAIL BOX
- CLEAN OUT
- MAPLE TREE (DBH)
- SPRUCE TREE (DBH)
- HAWTHORNE TREE (DBH)
- ASH TREE (DBH)
- CEDAR TREE (DBH)
- HOLLY TREE (DBH)
- CHESTNUT TREE (DBH)
- FIR TREE (DBH)
- HEMLOCK TREE (DBH)
- FRUIT TREE (DBH)
- RHODODENDRON
- LAUREL HEDGE
- (DBH) DIAMETER AT BREAST HEIGHT

- CONC. CONCRETE
- WATER MANHOLE
- MAIL BOX
- CLEAN OUT
- MAPLE TREE (DBH)
- SPRUCE TREE (DBH)
- HAWTHORNE TREE (DBH)
- ASH TREE (DBH)
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- FIR TREE (DBH)
- HEMLOCK TREE (DBH)
- FRUIT TREE (DBH)
- RHODODENDRON
- LAUREL HEDGE
- (DBH) DIAMETER AT BREAST HEIGHT

SURVEYORS CERTIFICATION

I HEREBY CERTIFY THAT THIS MAP CORRECTLY REPRESENTS A BOUNDARY AND TOPOGRAPHIC SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE REPRESENTS THE SITE FEATURES AS THEY EXISTED ON THE GROUND AS OF APRIL, 2015.



Gary D. Letzring
DATE: 4/29/15

GARY D. LETZRING, P.L.S. NO. 38013

REV. NO.	DESCRIPTION OF REVISION	DATE	BY

**106 97TH AVENUE NE,
BOUNDARY/TOPOGRAPHIC
SURVEY**

CLIENT:
**MR. MICHAEL BRUCE
106 97TH AVENUE NE,
BELLEVUE, WA 98004**

**PRIZM
SURVEYING INC.**
P. O. BOX 110700
TACOMA WA. 98411

OFFICE 253-404-0983
1993 FAX 253-404-0984
CONSTRUCTION LAYOUT - BOUNDARY AND TOPOGRAPHIC SURVEYS

CONTACT: GARY LETZRING, GLETZRING@PRIZMSURVEYING.COM

DATE OF SURVEY	04/09/15
DRAWN BY	D.H. / G.L.
DATE	4/24/2015
SEC. 31 TWP. 25N RANG. 05E	
SHEET	1 OF 1
PROJECT NO.	2015-042
DRAWING NO.	2015-042BG

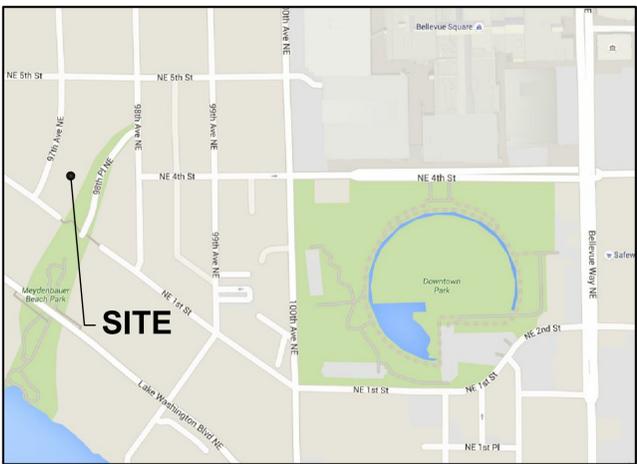
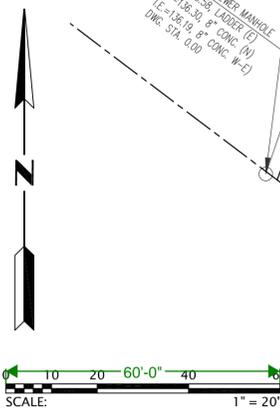
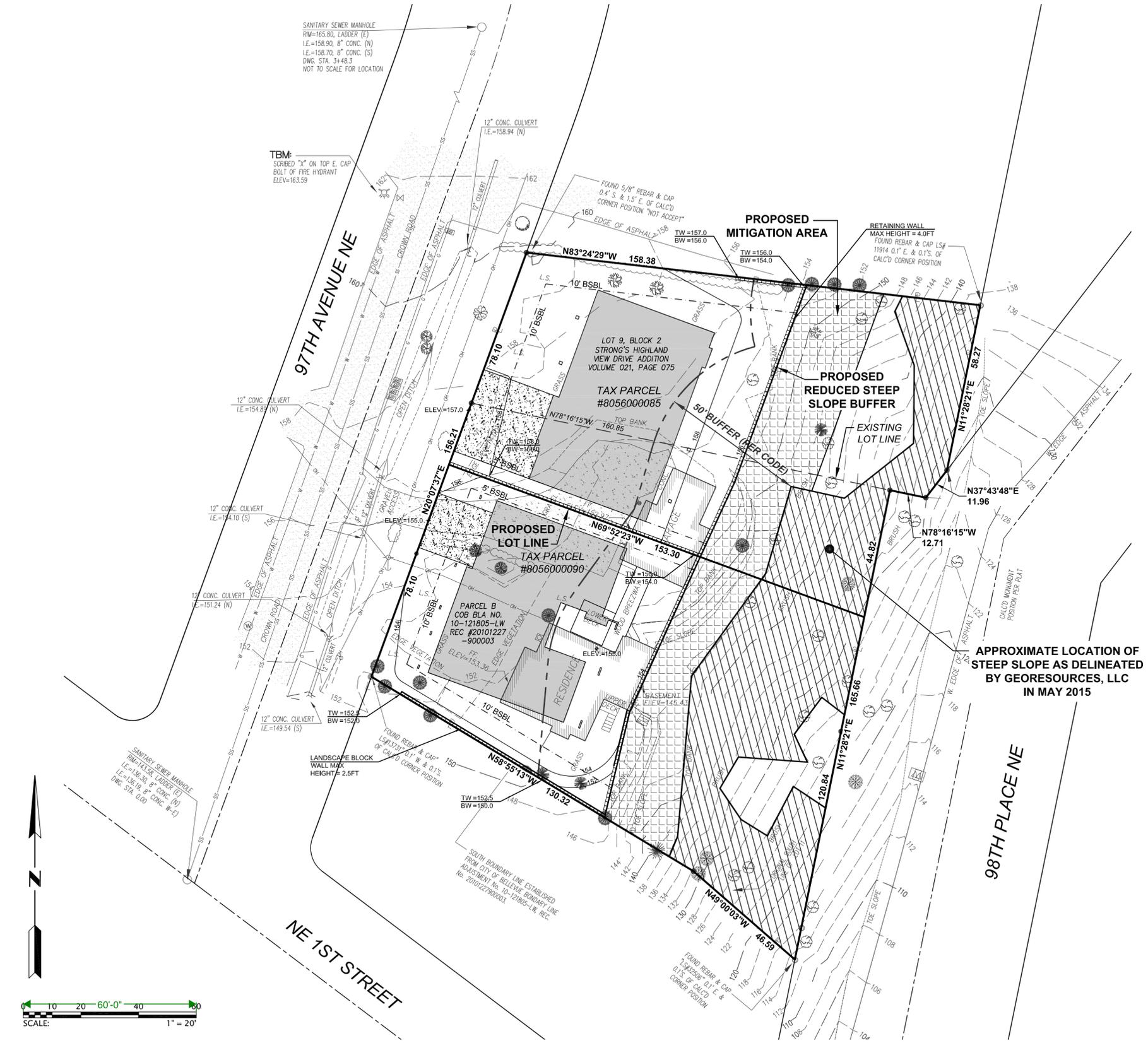
NOTES

1. THE PURPOSE OF THIS MAP IS TO SERVE AS A SITE PLAN DEPICTING THE PROPOSED BLA AND PROPOSED DEVELOPMENT CONCEPTS.
2. THE LIMITS OF STEEP SLOPE WITHIN THE PROJECT AREA ARE SHOWN AS DETERMINED BY GEORESOURCES, LLC IN MAY 2015.
3. THE UNDERLYING MAPPING AND TOPOGRAPHIC INFORMATION IS BASED ON A BOUNDARY AND TOPOGRAPHIC SURVEY BY PRIZM SURVEYING INC. ON APRIL 9, 2015.
- NO INDEPENDENT VERIFICATION OF DATA SHOWN HEREON HAS BEEN MADE BY GOLDSMITH.
4. HORIZONTAL DATUM: NORTH AMERICAN DATUM (NAD) 83/2011
THE SURVEY IS REFERENCED TO CITY OF BELLEVUE DATABASE HORIZONTAL CONTROL MONUMENTS NOS. 1503 AND 1507.
5. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88)
MASTER BENCHMARK: CITY OF BELLEVUE BENCHMARK NO. 286 (CITY OF BELLEVUE CASED MONUMENT), LOCATED ON CENTERLINE OF LAKE WASHINGTON BLVD. NE/NW OF HOUSE # 9621.
PUBLISHED ELEVATION = 113.36 FEET
TBM: SCRIBED "X" ON TOP OF EAST CAP BOLT OF FIRE HYDRANT ON WEST SIDE 97TH AVE. NE, OPPOSITE NORTHWEST PROPERTY CORNER OF LOT 9.
ELEVATION = 163.59 FEET
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. THEREFORE, THIS SURVEY DOES NOT PURPORT TO SHOW ANY OR ALL EASEMENTS BENEFITING OR BURDENING THIS SITE.
7. THE BURIED UTILITIES SHOWN HEREON REFLECT SURFACE EVIDENCE, SUPPLEMENTED WITH FOUND UTILITY LOCATION MARKINGS. ANY UNDERGROUND UTILITY LOCATION SHOWN HEREON ARE TO BE CONSIDERED APPROXIMATE ONLY. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN, CONTACT THE APPROPRIATE UTILITY COMPANY. PRIOR TO ANY CONSTRUCTION, CALL THE UNDERGROUND UTILITIES LOCATION CENTER AT 1-800-424-555 OR 811.

LEGAL DESCRIPTION

PARCEL A:
LOT 9, BLOCK 2, STRONG'S HIGHLAND VIEW DRIVE ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 21 OF PLATS, PAGE 75, IN KING COUNTY, WASHINGTON.
TOGETHER WITH PORTION OF VACATED ALLEY ADJACENT THERETO;

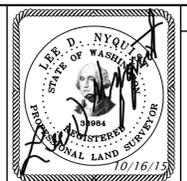
PARCEL B:
PARCEL B OF CITY OF BELLEVUE BOUNDARY LINE ADJUSTMENT NO. 10-121805-LW UNDER KING COUNTY RECORDING NUMBER 20101227900003.



VICINITY MAP
N.T.S.

GOLDSMITH
LAND DEVELOPMENT SERVICES
1215 114th Ave SE, Bellevue, WA 98004 | PO Box 3565, Bellevue, WA 98009
T 425 462 1090 F 425 462 7719 www.goldsmithengineering.com

PLOTTED: 2015/10/16 14:50 EMALM
DRAWN: EMALM
APPROVED: LNYQUIST



BDR BELLEVUE IX LLC
SITE PLAN B
FOR
BDR BELLEVUE IX LLC
128 97TH AVENUE NE, CITY OF BELLEVUE KING COUNTY, WASHINGTON

JOB NO. 15135
SHEET
1/1

M:\ACAD\SURVEY\1515135\15135X01.DWG

Ph. 253-896-1011
Fx. 253-896-2633

GeoResources, LLC
5007 Pacific Hwy. E, Suite 16
Fife, Washington 98424

October 6, 2015

Mr. Reilly Pittman, Associate Planner
City of Bellevue Development Services
P.O. Box 90012
Bellevue, WA 98009
rpittman@bellevuewa.gov
425-452-4350

Response to Comments Letter
Bruce Project - 106 97th Ave NE
Bellevue, Washington
PN: 8056000090 & 8056000085 three?
Job: Bruce.97thAveNE.RCL

This letter is provided to address comments from Mr. Reilly Pittman of the City of Bellevue regarding our geotechnical report for the subject site dated June 5, 2015. Our response and/or excerpts from the above referenced Geotechnical Engineering Report are provided in italics immediately following each code item.

20.25H.140 Critical areas report – Additional provisions for landslide hazards and steep slopes.

In addition to the provisions of LUC 20.25H.230, any proposal to modify a landslide hazard or steep slope or associated critical area buffer through a critical areas report shall comply with the requirements of this section.

A. Limitation on Modification.

The provisions for coal mine hazard areas in LUC 20.25H.130 may not be modified through a critical areas report.

According to Bellevue GIS data or historic coal mine maps from Washington State DNR, the site is not situated in a mapped coal mine hazard area.

B. Area Addressed in Critical Area Report.

In addition to the general requirements of LUC 20.25H.230, the following areas shall be addressed in a critical areas report for geologically hazardous areas:

1. Site and Construction Plans. The report shall include a copy of the site plans for the proposal and a topographic survey;

A copy of the original proposed site plan and topographic survey was included in our Geotechnical Engineering Report as Figure 2a. An updated site plan showing the two new residential structures is attached to this letter. It should be noted that the new structures are situated outside of the hazard/critical area, and to a large extent outside of the buffer area. The existing residence and garage are highlighted in yellow.

2. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted classification systems in use in the region;

The geological characteristics of the site are described in the "Site Conditions", "Site Soils" and "Site Geology" sections of the report based on literature review and site observations made by our representatives during the geologic reconnaissance. The "Subsurface Conditions" section of our report provides a description of the soils encountered as part of our subsurface exploration program. A detailed description, including soil classifications, can be found in the "Boring Log" included as Appendix "A" of the report.

3. Analysis of Proposal. The report shall contain a hazards analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its potential impact upon the hazard area, the subject property, and affected adjacent properties;

Based on our data review, site observations and evaluation, our engineering analyses, and experience in the area, it is our opinion that the steep slope areas at the site are in a stable condition under the existing conditions. No evidence of foundation or structural distress was observed at the time of our site visits. No evidence of slope instability was observed during our geologic reconnaissance of the site or surrounding area. The existing residence and garage at the site are located at the top of the steep slope critical area, very characteristic of construction of that era. The proposed new residences, north and south, will be setback 45 and 40 feet from the critical area slope, respectively. This is more than adequate from a geotechnical standpoint. The new residences will encroach into the regulatory buffer about 5 feet on the north structure, and 10 feet on the south structure, see attached figure.

It remains our opinion that the proposed development at the site will have no measurable impact on slope stability at the site, in fact it is our opinion that the locations of the new residence will reduce potential impacts relative to the existing residence. As noted in our previous report, it is common in situations like this where the site soils are stable to provide a Structural Setback, which effectively reduces the regulatory setback and buffer, allowing a structure to be situated closer to the top of the slope, with no adverse impact to slope stability or the critical area.

4. Minimum Critical Area Buffer and Building Setback. The report shall make a recommendation for a minimum geologic hazard critical area buffer, if any, and minimum building setback, if any, from any geologic hazard based upon the geotechnical analysis. (Ord. 5717, 2-20-07, § 10; Ord. 5680, 6-26-06, § 3)

It is our opinion that the residential structures may be situated based on a Structural Setback as provided in our previous report, 20 feet from the top of the slopes that are 40 percent or greater - combined setback and buffer. This Structural Setback method of meeting the horizontal setback distance is based on the IBC. Based on our review

of the site plans provided, the currently proposed setback and buffer is greater than the recommended setback/buffer, on the order of 40 feet or more.

20.25H.145 Critical areas report – Approval of modification.

Modifications to geologic hazard critical areas and critical area buffers shall only be approved if the Director determines that the modification:

A. Will not increase the threat of the geological hazard to adjacent properties over conditions that would exist if the provisions of this part were not modified;

Our understanding of the project is based on the site plan provided, which is a removal of the existing residence, detached garage and appurtenant utilities/structures, and construction of two residences as shown on the attached Site Plan. As previously indicated in our geotechnical report, it is our opinion that proposed development at the sites will have little or no measurable adverse impact on slope stability or the critical areas at the site or the adjacent areas, provided it is completed appropriately and in conformance with the recommendations and design criteria provided in our geotechnical report. In fact, it is our opinion that the new residences will reduce the potential risk of impact to the critical area, as they are setback further from it.

B. Will not adversely impact other critical areas;

As previously indicated in our geotechnical report and above, it is our opinion that proposed development at the sites will have no measurable adverse impact on slope stability or the critical areas at the site or the adjacent areas, provided it is completed appropriately and in conformance with the recommendations and design criteria provided in our geotechnical report. In fact, it is our opinion that the new residences will reduce the potential risk of impact to the critical area, as they are setback further from it.

C. Is designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than would exist if the provisions of this part were not modified;

Based on our site observations, there is no evidence of distress or damage to the existing residential structures at the site related to the critical area - steep slope. The existing residence and garage at the site do not appear to have had any observed adverse impact on the steep slope area at the site or the adjacent areas. It is our opinion that proposed development at the site will have no measurable adverse impact on slope stability or the critical area at the site or the adjacent areas. The reviewed and approved development will be constructed in accordance with the City of Bellevue's, King County's and State of Washington's regulations.

D. Is certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington;

The services described in this report were prepared under the responsible charge of Mr. Brad P. Biggerstaff, LEG/LHG and Mr. Dana C. Biggerstaff, PE, who meet the definitions of

“geologist” and “geotechnical/civil engineer”, respectively, according to BMC 20.25H.145.” They have reviewed the proposed site plan and agree that as proposed, the residential development should be safe under the anticipated geotechnical conditions.

E. The applicant provides a geotechnical report prepared by a qualified professional demonstrating that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures. Geotechnical reporting standards shall comply with requirements developed by the Director in City of Bellevue Submittal Requirements Sheet 25, Geotechnical Report and Stability Analysis Requirements, now or as hereafter amended;

Based on our data review, site observations and evaluation, our engineering analyses, and experience in the area, and as presented in our geotechnical report, it is our opinion that the steep slope areas at the site and the adjacent areas are stable under the existing conditions. This is based on a number of factors presented in our report; site observations, geologic reconnaissance, review of the available published data (soils, geologic maps, structural maps, hazard maps), subsurface explorations and our experience in the area. No distress or damage related to differential settlement or slope movement was observed at the existing structures at the site. Conversely, the existing residence and garage at the site have had no observed adverse impact to the steep slope area at the site. No evidence of slope stability or significant erosion was observed at the site or the adjacent areas. It remains our opinion that the proposed residential development at the sites will have no measurable adverse impact on critical area or slope stability at the site or the adjacent areas. The proposed new development does not extend into the steep slope area, in fact the new residences are proposed to be setback 40 feet or more from the top of the steep slope area, a much greater distance than the existing structures. It also remains our opinion that the Setback and Buffer areas may be combined and reduced. A "Structural Setback" of 20 feet was provided in the "Recommended Setback" section of our geotechnical report, based on our site evaluation. It is our opinion that a formal - computer generated slope stability analyses is not warranted at this site.

F. Any modification complies with recommendations of the geotechnical support with respect to best management practices, construction techniques or other recommendations; and

We expect that the future residences at the site will take advantage of the existing topography and minimize the amount of excavation or grading at the site. Recommendations for conventional and daylight basement type construction are included in our geotechnical report. Recommendations for pile supported deck support (isolated column foundations), if needed, are provided in order to minimize the need for ground disturbance. Once the plans for the residences are finalized, we will review them and provide a letter of conformance to the geotechnical report.

G. The proposed modification to the critical area or critical area buffer with any associated mitigation does not significantly impact habitat associated with species of local importance, or such habitat that could reasonably be expected to exist during the anticipated life of the development proposal if the area were regulated under this part. (Ord. 5680, 6-26-06, § 3)

Our report addresses geotechnical issues associated with critical areas, specifically related to steep slope, landslide, erosion and seismic hazards. Impacts to potential habitat should be addressed by other members of the project team. However, based on the fact that the proposed new residences will be located further away from the critical area than the existing structures, 40 feet or more, it is probable that there would be significantly less impact than the existing conditions.

20.25H.255 Critical areas report – Decision criteria.

A. General.

Except for the proposals described in subsection B of this section, the Director may approve, or approve with modifications, the proposed modification where the applicant demonstrates:

1. The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code;
2. Adequate resources to ensure completion of any required mitigation and monitoring efforts;
3. The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and
5. The resulting development is compatible with other uses and development in the same land use district.

The subject site is currently developed as a residential site, and is located in an area of established residential development within a dense metropolitan area. The proposed development will include like replacement of the existing residential structures in accordance with the current land use criteria, however the new residential structures will be located 40 feet from the critical area as opposed to the existing structures near the top of the slope. The new development should be reviewed and approved by the City, and should therefore provide an improvement of the function and value of the habitat associated with the critical and buffer areas.

B. Decision Criteria – Proposals to Reduce Regulated Critical Area Buffer.

The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:

1. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;

As stated above, the proposed new residential development will have a significantly reduced encroachment into the critical and buffer areas than does the existing development. The new residences will be situated 40 feet or more from the critical area. Although a portion of each structure will encroach into the buffer area, that encroachment is significantly reduced than the existing structures, and has been

modified to be as insignificant as possible. The current proposal is a significant gain in buffer area, and therefore habitat, relative to the existing conditions at the site.

2. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;

Our geotechnical report addresses the critical area relative to geologic hazards. Ecosystem function should be addressed by other members of the project team. However, as previously discussed, the increase in buffer area should provide a significant improvement in habitat function and value.

3. The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer;

The ground surface should be sloped away from the residences and the steep slope area. We recommend roof and footing drains for all structures. We further recommend that driveway runoff be sheet flowed to the adjacent vegetation if practical, or collected and directed to the roadway system if possible. Roof runoff should be collected and directed to appropriate discharge areas. Based on the soils encountered, infiltration is not a likely options. If feasible, the collected runoff should be directed to the roadway system. This may require storage vaults/tanks and pumping to reach the roadway system. This type of system should include a battery backups.

Alternatively, and based on City requirements and site limitations, the collected stormwater runoff may be directed to a dispersion system situated near the top or toe of the east slope area.

4. Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;

GeoResources, LLC currently possesses a sufficient number of qualified personnel to complete construction monitoring of earthwork construction activities on the site. Habitate restoration activities should be monitor by an appropriate professional. The resources of the owner are not within our purview to evaluate.

5. The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and

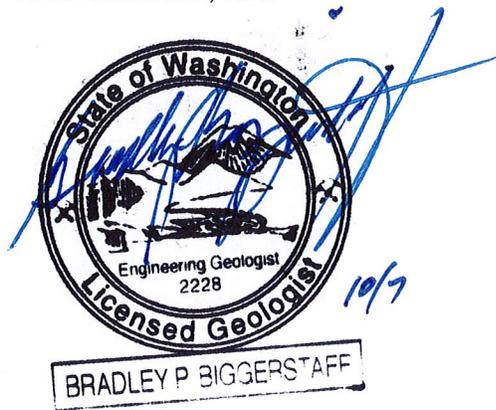
As previously noted, we will provide services related to earthwork, utility and foundation support for the proposed new residential development. The existing residence and garage at the site have had no observed adverse impact to the steep slope area at the site. Because the proposed development will be situated further away from the critical area, there should be a significant improvement of the function and value of the habitat area. It is our opinion that proposed residential development at the site will have no measurable adverse impact on slope stability at the site or the adjacent areas provided it is completed appropriately and in conformance with the recommendations and design criteria provided in our report and approved by the City.

6. The resulting development is compatible with other uses and development in the same land use district. (Ord. 5680, 6-26-06, § 3)

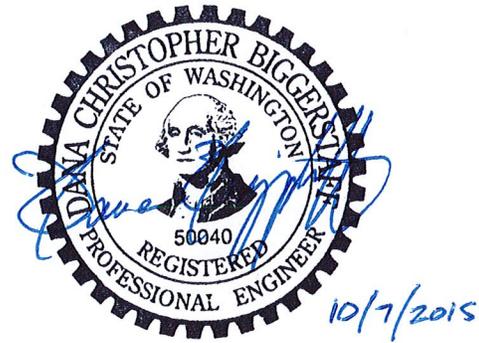
The project site is located in an area of established residential development and within an existing high density metropolitan area. The subject site is currently developed with the existing structures situated at the top of the steep slope critical area. The proposed residences will be located 40 feet or greater from the top of the steep slope, a much greater distance.

Please do not hesitate to call at your earliest convenience if you have any questions or comments.

Respectfully submitted,
GeoResources, LLC



Brad Biggerstaff, LEG
Principal



Dana Biggerstaff, PE
Senior Geotechnical Engineer



NOT TO SCALE

GeoResources, LLC
5007 Pacific Highway East, Suite 16
Fife, Washington 98424
Ph: 253-896-1011 Fax: 253-896-2633

Site Plan
Proposed Residential Development
106 – 97th Ave NE
Bellevue, Washington

Doc: Bruce.97thAveNE.SP

October 2015

Figure 1

CRITICAL AREAS REPORT

BDR Fine Homes, Bellevue, WA

Prepared for:
Jim Dwyer
BDR Holdings, LLC
11100 Main Street, Suite 201
Bellevue, WA 98004



CRITICAL AREAS REPORT

BDR Fine Homes – Bellevue, WA

Prepared for:

Jim Dwyer
BDR Holdings, LLC
11100 Main Street, Suite 201
Bellevue, WA 98004

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CRITICAL AREAS REPORT

BDR FINE HOMES – BELLEVUE, WA

1 INTRODUCTION

1.1 Background and Purpose

The purpose of this report is to document potential critical area and critical area buffer impacts associated with the proposed residential development project located on two parcels in the City of Bellevue, Washington (Figure 1). One of the lots presently contains a house with detached garage, driveway, and lawn. The second lot is currently undeveloped.

The applicant proposes to demolish the existing residence and detached garage and construct two new single-family residences. A lot line adjustment would also occur in order to allow room for both residences. Portions of the rear yard area for both residences will be located within the standard top-of-slope buffer. Bellevue Land Use Code (LUC) 20.25H.230 requires compliance with specific critical areas report criteria as part of any modification to a critical area buffer. This report fulfills these criteria. Further, pursuant to LUC 20.25H.250(C)(1), this report has been prepared in conjunction with a geotechnical analysis report by GeoResources, LLC. The majority of technical geological hazard discussion can be found in their report. Conversely, this report presents a detailed discussion of the habitat and vegetation on-site and how the proposed development can be achieved with no net loss of on-site or off-site critical area functions and values.

1.2 Description of Project Area

The subject parcels are located at 106 97th Avenue NE (the northerly undeveloped parcel is unaddressed) (parcel numbers 8056000090 and 8056000085) in the City of Bellevue. The southerly parcel is approximately 0.47 acre in size. It is developed and contains a single-family home (built in 1914) with an associated garage and gravel driveway as well as maintained lawn and landscaped beds; a dirt road is also located on the east side of the house. The northerly parcel is approximately 0.23 acre in size. It is undeveloped and contains several fruit trees, landscaped beds, and lawn areas. Both properties slope downhill to the southeast. The slope continues downhill approximately 100 feet before transitioning into 98th Place NE, which is the entry road for Meydenbauer Beach Park.

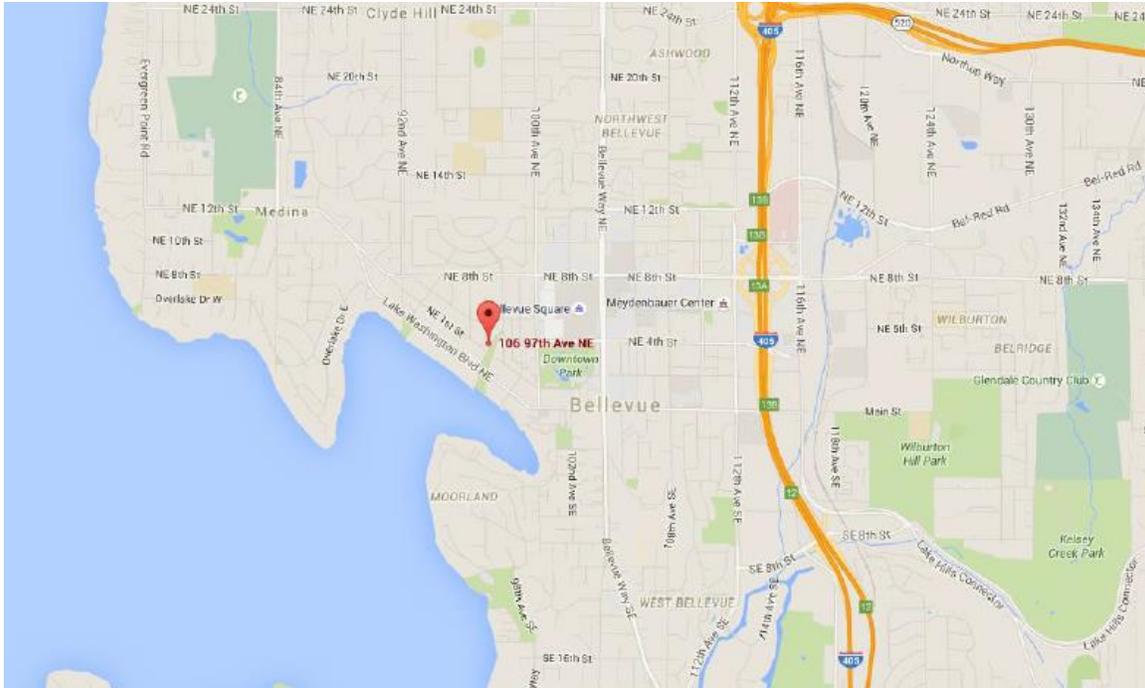


Figure 1. Vicinity Map.

No wetlands or streams were noted on the parcels or within the vicinity, nor do publicly available data indicate the presence of these areas. According to the geotechnical report prepared by GeoResources, LLC (dated June 5, 2015), groundwater seepage was not observed on-site.

Vegetation

Vegetation on the subject properties is generally altered or disturbed and can be characterized as one of the two following types: 1) maintained yard and landscaped areas located on the northwest portion of the properties or 2) isolated patch of urban forest located on the slope on the southeast side of the properties.

The maintained yard and landscaped areas contain lawn as well as common landscaping hedges, shrubs, and trees including several types of fruit trees, dogwood, rhododendron, lilac, holly, laurel, snowberry, and rose. Three large ornamental conifers are also present in this area on the developed parcel.

A forested slope is located on the east side of the properties; this includes the areas identified as steep slopes by GeoResources, LLC. Common vegetation observed on the slope includes bigleaf maple and bitter cherry in the canopy with western red cedar in the sub-canopy. Understory vegetation includes oceanspray, English laurel, English holly, and beaked hazelnut in the shrub stratum with English ivy dominating the groundcover layer. Other non-native species observed include Himalayan blackberry, cherry laurel, English hawthorn, knotweed, and a weedy cherry tree species (likely *Prunus avium*).

Soils

According to the USDA Natural Resource Conservation Service (NRCS) Web Soil Survey maps, the soils across the site are mapped as Ardents, Alderwood Material (AmC). According to a geotechnical report prepared by GeoResources, LLC (dated June 5, 2015), the presence of these soils were confirmed on-site. Also according to the report, no noticeable signs of past slope instability were observed.

Habitat

The forested area on the steep slope provides an urban refuge for wildlife, despite the prevalence of non-native vegetation in the understory. Habitat structure on the steep slope is relatively simple, with a few moderately-sized deciduous trees, some smaller western red cedar trees, and scattered groups of mixed native, ornamental and invasive shrubs providing disconnected patches of mid-layer vegetation. The undergrowth contains areas of sword fern and low Oregon grape, although invasive English ivy is the predominant species. Special features such as snags and large woody debris, which provide habitat for birds and small mammals, are present on the site. There are a few native and non-native nut- and berry-producing plants on the site, including beaked hazelnut, osoberry, and Himalayan blackberry, which provide a food source for songbirds and small mammals. However, these plants are generally present in low quantities and densities (with the exception of a Himalayan blackberry monoculture in the southeast corner). The majority of the groundcover vegetation is composed of English ivy. The ivy may provide cover for small mammals, but in suburban environments, these are usually limited to pest species (mice and rats). The conifers on site, mostly western red cedar, do not provide quality perching and nesting opportunities for bald eagles and osprey, which prefer to forage and nest next to large open waters such as Lake Washington. The trees and particularly the conifers on the property are generally too small to provide such habitat, especially with more suitable trees present elsewhere in the general vicinity.

While moderate wildlife habitat is present on the steep slope areas, the steep slope buffer (where the proposed development is located) is extremely limited by a lack of native vegetation and structural diversity. The buffer areas are dominated by non-native ornamental fruit trees with a sparse or English ivy-dominated understory to the north and a Himalayan blackberry monoculture to the south. These areas do not constitute a forest canopy and do not provide substantial forage opportunities for native wildlife, although some cover opportunities for songbirds and small mammals are afforded by these species. The outer portion of the steep slope buffer is composed of mowed lawn areas and existing structures. These provide little to no wildlife habitat. There are no special habitat features, such as downed wood or snags, present in the buffer or the proposed development areas.

Despite the potential for the forested steep slope area to provide some wildlife habitat, the habitat provided is limited to ubiquitous suburban wildlife, including songbirds and

small mammals (raccoons, opossum, squirrels, etc.). The lack of connectivity to other significant habitats limits the opportunity of the area to provide habitat for larger and/or more reclusive wildlife species.

2 SPECIES OF LOCAL IMPORTANCE

The City of Bellevue designates habitat associated with species of local importance as a critical area [LUC 20.25H.150(B)]. There is no suitable habitat on the property for any species of local importance [LUC 20.25H.150(A)], particularly in the steep slope buffer area. Species for which suitable habitat exists elsewhere in the general vicinity of the subject property are discussed here for completeness. These species include bald eagle, pileated woodpecker, Vaux's swift, merlin, purple martin, great blue heron, osprey, red-tailed hawk, and common loon. The likelihood of each of these species utilizing the property is discussed below.

Bald eagles are common foragers over Lake Washington, and active nests are known in the lake area. Eagles often perch in tall lakeside trees for foraging and resting. Eagle nests are most commonly built near broken tops of tall trees, and in western Washington, nests in forks of large deciduous trees are also common. Suitable trees do not exist on the property, and more suitable large Douglas-fir trees with better proximity to the lake are present elsewhere in Meydenbauer Beach Park.

The property is not within a Bald Eagle Management Zone, as indicated by Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) data. The nearest documented site is approximately one mile to the southeast.

Pileated woodpeckers commonly use large conifers for drumming and foraging. The species is often spotted in suburban areas in King County. Individuals may occasionally use the larger trees within the steep slope area, although the species' preferred large snags are not present. Suitable nesting sites for this species do not exist on the parcels.

Vaux's swifts forage in open skies over forests, lakes, and rivers, where insects are abundant. Lake Washington provides suitable foraging habitat, and the species may be present at times over the parcels. Nesting normally takes place in old-growth forests where large, hollow snags are available. These features are not present on the property. Therefore, the parcels are unlikely to provide nesting habitat for this species.

Merlins occur throughout western Washington in winter and during migration. Breeding birds are rare in the state. Occurrences are spotty, but not uncommon in suburban areas, and birds could potentially perch in the taller trees on the steep slope areas. There are no trees of sufficient height for perching in the steep slope buffer.

Merlins typically nest in old nest sites built by other birds, usually in coniferous forests, which are not present on the property.

Purple martin is Washington State's least common swallow. The species forages over open water, including Lake Washington. However, the snags present on the steep slope portions of the property are not of suitable size for cavity-nesting. There are no snags present in the buffer area.

Great blue herons are widespread in western Washington. Outside of breeding, which occurs in tall trees, commonly away from human disturbance, the birds are most often observed in and along rivers, lakes, and wetlands. The nearby waters of Lake Washington are likely used by foraging and resting herons throughout the year. However, the species is unlikely to use the subject property.

Osprey are very common over Lake Washington. Osprey typically nest in trees adjacent and above water. The trees on the property are not of sufficient height or size to be used for nesting, and are likely not used for perching, with more suitable trees and locations present elsewhere in the general vicinity. The nearest WDFW documented nesting site is located approximately 1,300 feet to the southeast, at the Meydenbauer Marina.

Red-tailed hawks nest in large trees, which could include the larger trees on the subject property, although no active nests are present. However, nests are generally located in more extensive woodlands than the site offers. Red-tailed hawks are ubiquitous in this area and are likely to occasionally perch on or fly over the parcels.

Common loons prefer large, secluded lakes in the eastern part of the state for breeding. In winter, the species is most common on the coast and in saltwater bays and inlets, but can be seen on freshwater lakes near the coast as well. The open waters of Lake Washington are commonly used by wintering loons, but the species is unlikely to enter the subject parcels.



Figure 2: Existing garage structure inside standard buffer – to be replaced with lawn areas.



Figure 3: Himalayan blackberry moniculture in the steep slope buffer – to be removed and enhanced.



Figure 4: Existing footpath in buffer – to be decompacted and planted with trees and shrubs.



Figure 5: Buffer area to be enhanced with invasive species removal and installation of native trees and shrubs.



Figure 6: Buffer area to be enhanced with invasive species removal and installation of native trees and shrubs.

3 LOCAL REGULATIONS

In Bellevue, steep slope critical areas are governed by Critical Areas Ordinance No. 5680. According to LUC 20.25H.120(A)(2), slopes of 40 percent or more that have a rise of at least 10 feet and exceed 1,000 square feet in area are designated as geologic hazard areas and therefore subject to the regulations of LUC 20.25H.120 through 20.25H.125.

According to LUC 20.25H.120(B)(1)(b), steep slope critical areas require a top-of-slope buffer of 50 feet. However, because the southerly parcel contains an existing primary structure, the footprint of the existing primary structure is not located within the steep slope buffer. This does not, however, apply to the detached garage, breezeway, or decks. Further, pursuant to LUC 20.25H.120(C)(2), steep slopes require a toe-of-slope setback of 75 feet.

Steep slope buffers can only be modified through an approved critical areas report. The applicant must demonstrate that the modifications to the critical area buffer, combined with any restoration efforts, will result in equivalent or better protection of critical area functions and values than would result from adhering to the standard application of the regulations (LUC 20.25H.230). Restoration may involve restoring degraded portions of the buffer, removing invasive plant species, and/or planting native vegetation within the

critical area and/or buffer. An approved restoration plan would require monitoring and maintenance in accordance with LUC 20.25H.220.

4 PROJECT DESCRIPTION

The proposed project includes the demolition of the existing single-family residence, as well as all accessory structures. The existing residence, and detached garage, is located on the southern of the two parcels included in the application. A lot line adjustment is proposed in order to more evenly distribute area between the two lots. Following the boundary line adjustment, similar sized residences would be constructed on each parcel. In order to provide adequate yard areas for each residence, the steep slope buffer on each lot would be reduced.

The northern parcel would have its buffer reduced from the standard 50-feet to a minimum width of 19-feet; with a maximum width of 26-feet provided across the majority of the lot. The southern parcel, which currently contains a residential structure, would have its buffer reduced in overall area, although the minimum width of the buffer would be 14-feet, as it is under existing conditions.

Project Purpose

The purpose of the proposed project is to replace an outdated single-family residence with an updated residence. The existing structure, constructed in 1914, is in a dilapidated condition. The property owner proposes to demolish and remove the existing structure and construct a new residence. In addition, a second home will be constructed on the undeveloped northern parcel. The shared lot line between the two parcels will be relocated in order to more equally distribute buildable area. The goal in constructing a new residence on each lot is to create structures that will contain all of the essential components of a modern-day residence, as well be compatible with existing residences within the same area.

Mitigation Sequencing

Pursuant to LUC 20.25H.215, attempts to avoid and minimize impacts to the on-site steep slope and buffer have been taken.

Avoidance: As previously mentioned, a portion of each lot is encumbered by steep slopes and steep slope buffers. Impacts to steep slopes have been avoided by positioning both proposed residences as close to 97th Avenue NE as feasible. Impacts to the standard steep slope buffer will occur, however, and have been minimized to the greatest extent feasible (see below).

Minimization: Minimization techniques were utilized during the design process in order to limit impacts to the standard steep slope buffer. Minimization measures included: 1) reducing the front yard setback for both lots from 20-feet to 10-feet. This setback reduction allows for both residences to be placed closer to 97th Avenue NE and thus, further from the on-site steep slopes; and 2) limiting the rear yard area for each residence to the edge of existing lawn/ornamentally landscaped areas. This will prevent impacts to existing native vegetation within the buffer.

Mitigation: As mitigation for modifying the standard steep slope buffer, 4,570 square feet of the two parcels will be enhanced. This includes 2,541 square feet on the northern parcel and 2,029 square feet on the southern parcel. Enhancement will occur within the steep slope buffer (Appendix A). Enhancement will consist of planting native trees, shrubs and groundcover throughout the buffer. Restoration will occur in areas currently occupied by non-native vegetation and devoid of significant native species. Proposed species for planting include western red cedar, serviceberry, beaked hazelnut, osoberry, thimbleberry, red elderberry, and snowberry. The proposed restoration will provide an additional level of protection for the steep slope buffer and will offset the proposed reduction in the standard buffer. Overall, a net improvement in critical area and critical area buffer functions is proposed.

5 IMPACT ASSESSMENT / LIFT ANALYSIS

As mentioned in the previous section, portions of the rear yard for the two new residences will be located within the standard steep slope critical area buffer. A small portion of a new deck will also be located within the standard buffer on the northern lot. Otherwise, the entirety of impacts to the buffer will result from preservation of the existing yard areas for each lot. The northern lot will have its buffer reduced from 50 feet to a minimum width of 19 feet, with a maximum width of 26 feet provided across the majority of the lot. The southern parcel will have its buffer reduced in area, although the minimum buffer width would remain unchanged at 14 feet. Table 1 below details the buffer area for each lot before and after buffer modifications. It also describes the proposed removal of existing structures that are currently located in the buffer and summarizes total proposed enhancement.

Table 1. Impact/Mitigation Assessment

	Existing Condition (SF)	Proposed Condition (SF)
Northern Lot		
Buffer Area	8,915	6,549
Structures within Buffer	535	0
Buffer Enhancement	---	2,541

Southern Lot		
Buffer Area	9,462	7,482
Structures within Buffer	698	0
Buffer Enhancement	---	2,029

As can be seen in the above table, buffer area will be reduced on each lot. The northern lot will see a 2,366 square foot reduction (26.5%), while the southern lot will see a 1,980 square foot reduction (20.9%). However, a significant removal of structures (1,233 square feet) within the buffer will occur and a large amount of enhancement (4,570 square feet) will take place. Enhancement has been focused on those remaining areas of the buffer that are covered within invasive species or lacking in native vegetation. Proposed native vegetation is intended to improve the overall functions and values of the on-site critical area buffers. An analysis of the specific functions and values provided by the existing site and the post-project site is provided in Table 2.

Table 2. Functional Lift Analysis

Critical Area/ Buffer Functions	Existing Conditions	Proposed Conditions	Functional Improvement?
Water Quality	Most of the existing steep slope buffer is composed of native trees with non-native/invasive shrubs and groundcovers in the understory. The buffer areas not currently developed are sparsely vegetated with ornamental fruit trees and mowed lawn. The existing buildings and mowed lawn areas, in particular, do not provide a vertical structure to trap and filter sediments.	Remove existing structures and replace with lawn areas. Remove non-native and invasive species and replace with native trees and shrubs. New residential structures will be farther away from the steep slope than the current structures.	Water quality will be maintained. New native plantings will help to filter storm water prior to it reaching receiving waters. Existing structures provide no filtering capacity. While lawn areas provide only minimal filtering capacity, they represent a slight functional lift over the existing structures.
Slope Stability	Per the Geotechnical Report, the existing slope is stable under current conditions. The existing structures and lawn areas protrude well into the standard buffer, as far as the proposed reduced buffer in some	Remove existing structures and replace with lawn areas. Remove non-native and invasive species and replace with native trees and shrubs. New residential structures will be farther away from the steep slope	Replacing the existing structures in the standard buffer with lawn areas represents a minor increase in protection of slope stability. Lawn areas provide a minimal reduction in erosive stormwater flows, but the reduction is a slight

	locations.	than the current structures. The existing dirt footpath will be de-compacted and planted with native trees and shrubs.	improvement over entirely impervious surfaces. The proposed native plantings that will replace the non-native and invasive species within the reduced buffer will provide a much deeper root system that will increase slope stability. De-compacting the footpath and planting with trees and shrubs will improve slope stability by establishing a root structure and absorbing/slowing precipitation above the steep slope.
Habitat	The standard steep slope buffer contains existing structures and little native vegetation, and woody vegetation is limited to ornamental fruit trees. The lawn areas do not provide significant cover or forage opportunities.	Remove existing structures and replace with lawn areas. Remove non-native and invasive species and replace with native trees and shrubs. New residential structures will be farther away from the steep slope than the current structures.	Forage and cover opportunities for wildlife will be improved by replacing non-native and invasive species with a native tree and shrub community.
Net Condition	Existing steep slope buffers are highly degraded with existing structures, lawn areas, and non-native and invasive species dominating the standard buffer. The existing condition provides very low levels of function for protecting water quality, slope stability, and habitat.	The existing structures will be removed and replacement structures will be constructed farther away from the critical area. Areas of existing lawn will remain as lawn and the current building footprints will be replaced with additional lawn. Other areas dominated by non-native fruit shrubs and trees and/or invasive shrub species will be replaced with a native tree and shrub community.	The proposed reduction of the standard steep slope buffer, combined with the proposed site plan and buffer enhancement plan will represent an improvement of all buffer functions. While the buffer width will be reduced, the proposed conditions will leave the structures farther from the steep slope, while increasing vegetative cover and diversity in the existing degraded buffer areas.

There will be a temporal loss of predominantly shrub habitat on the site, as existing vegetation is replaced with young trees and shrubs. The change from existing state to mitigated state will represent an increase in the quality of habitat from the perspective of the site potential. Vegetation removal consists largely of invasive species, ornamental species, grass, and scattered native shrubs. Few native tree species or shrubs are presently growing in the impact areas. The proposed buffer enhancement plan involves the removal of invasive vegetation and the establishment of western red cedar trees and multiple shrub species. The presence of these plants on the site provides greater potential for the site to develop a complex forested component than exists in the area presently.

Although a greater footprint will be covered by the proposed development than the existing development (across both parcels), the area of structural development and other impervious surfaces in both the existing standard buffer and the proposed reduced buffer will be decreased. While the standard buffer will be reduced, the function of the buffer will be improved. The general, net result of the proposal will be to convert existing structures in the standard buffer to lawn areas; retain lawn areas in the former standard buffer; and convert lawn areas, invasive species monocultures, and areas dominated by non-native ornamentals in the reduced buffer to a native tree and shrub community. The parcels will be more suitable overall for urban songbird and small mammal species than it is presently; the understory will contain more woody vegetation and a greater structural complexity, which is more attractive to songbirds and small mammals than are the existing structures, lawn areas, and low-growing, homogeneous vegetation. As well, a greater mix of flowering, fruiting and seeding plants will provide forage over a longer yearly timespan than the relatively existing non-native fruit trees. Wildlife species of the Pacific Northwest are also better adapted to forage provided by native plants than non-native and ornamental species. Water quality and slope stability will be improved by moving the structures and impervious areas farther away from the steep slope and increasing the density and vertical structure of the buffer vegetation. The trees proposed in the buffer will develop large root systems that help anchor soils above the steep slopes.

6 CRITICAL AREAS REPORT CRITERIA

As previously mentioned, steep slope critical area buffers may be modified pursuant to LUC 20.25H.230. The Director may approve modifications if it can be shown that, through restoration, the modification will result in equivalent or better protection of critical area functions and values. The existing project area contains areas of low functioning steep slope buffer. Non-native vegetation occupies a significant portion of

the steep slope critical area, while the buffer contains existing structures and lawn areas. The proposal includes restoration of the steep slope buffer with native plantings. These restoration actions will serve as mitigation for the loss of 4,346 square feet of steep slope buffer. A total of 4,570 square feet of the project area will be enhanced through the planting of native trees, shrubs, and groundcover within the steep slope critical area buffer. The planting layout incorporates a diversity of native plant species. The restoration plan will provide for substantially improved critical area and buffer functions and values relative to the existing condition. A monitoring and maintenance plan for the proposed mitigation area is also included in this report.

Per the LUC, the critical areas report must meet specific decision criteria in order for the Director to approve a proposal to modify the regulated steep slope critical area buffer. Compliance with the relevant critical areas report criteria listed in LUC 20.25H.250(B) is addressed below.

1. *Identification of each regulation or standard of this code proposed to be modified.*

The subject site contains areas of steep slope, as defined by LUC 20.25H.120(A)(2). Pursuant to LUC 20.25H.120(B)(1)(b), a 50-foot top-of-slope buffer is required. The applicant proposes to construct two new single-family residences, with associated yard areas within portions of the standard steep slope critical area buffer. The proposal complies with the remaining regulations and standards of this code.

3. *A habitat assessment consistent with the requirements of LUC 20.25H.165.*

1. *Detailed description of vegetation and habitat on and adjacent to the site;*

See Section 1.2 and 2.

2. *Identification of any species of local importance that have a primary association with habitat on or adjacent to the site and assessment of potential project impacts to the use of the site by the species;*

See Section 2 and Section 5 (Table 2).

3. *A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the site;*

When there is the potential for species of local significance to be impacted by a proposal, the project is subject to LUC 20.25H.160, which states that a WDFW wildlife management plan be implemented. As discussed above, there is no suitable habitat for any species of local significance in the

project area. Therefore, WDFW habitat management recommendations are not applicable to the proposed project.

4. *A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;*

See Table 2. The proposed project will result in an improvement in habitat, specifically in the direct project area. While the reduced buffer area will be smaller than the standard buffer, the habitat provided in the reduced buffer will be improved by removing invasive species monocultures and replacing them with native tree and shrub communities. Forage and cover opportunities will be improved as the structural diversity is increased and native fruit- and nut-producing species replace the non-native fruit trees. Furthermore, habitat conditions in the former standard buffer will not be adversely affected, as yard areas will remain as yard areas and existing structures will be removed and replaced with additional yard areas. While yards do not provide complex wildlife habitat, they do provide limited capacity for forage opportunities for songbirds and small mammals.

5. *A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed use or activity and to be conducted in accordance with the mitigation sequence set forth in LUC [20.25H.215](#); and*

See Section 4 for mitigation sequencing and Section 5 for habitat restoration details.

6. *A discussion of ongoing management practices that will protect habitat after the site has been developed, including proposed monitoring and maintenance programs.*

See Section 7.

4. *An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development.*

Indirect and cumulative impacts can be addressed insofar as land use of the surrounding landscape can be expected to change over time. The lots surrounding the property are zoned R-3.5, with some potentially not yet achieving maximum allowable density. Therefore, it is possible that additional development in the vicinity may occur. In the event that the adjacent, undeveloped forest is fragmented further, the restored areas of the property will gain “refuge” value. Small and/or isolated forested patches within a developed landscape act as refuges to traveling wildlife and are

extremely important for keeping wildlife within urban and suburban areas, as well as for facilitating movement through and within such areas. Thus, the increase in habitat complexity associated with the restoration plan for the parcels will improve future refuge value of the site in the event that nearby properties are further developed.

5. *An analysis of the level of protection of critical area functions and values provided by the regulations or standards of this Code, compared with the level of protection provided by the proposal. The analysis shall include:*

a. *A discussion of the functions and values currently provided by the critical area and critical area buffer on the site and their relative importance to the ecosystem in which they exist;*

See Table 2.

b. *A discussion of the functions and values likely to be provided by the critical area and critical area buffer on the site through application of the regulations and standards of this Code over the anticipated life of the proposed development;*

The strict application of the regulations and standards of LUC 20.25H would allow for the development of both residences. However, rear yard areas would be limited and existing degraded portions of the buffer and steep slope area would remain. Other than remaining free of allowed yard area, a majority of the buffer would remain in its existing condition (lawn) and would not be enhanced. Therefore, no new native vegetation would be added to the site and ecological conditions would not improve.

Instead, the proposed project will result in the addition of substantial native vegetation within the steep slope critical area buffer. The native plantings will increase stormwater infiltration and provide increased species and structural habitat diversity within the steep slope critical area buffer, as well as improved slope stability. [See also Table 2.]

c. *A discussion of the functions and values likely to be provided by the critical area and critical area buffer on the site through the modifications and performance standards included in the proposal over the anticipated life of the proposed development; and*

By requesting a critical area modification pursuant to LUC 20.25H.230, the applicant is provided the opportunity to restore portions of the on-site steep slope critical area buffer. A restoration plan has been prepared (see Appendix A) that details the area proposed for restoration. This plan mitigates for the intrusion of the rear yard areas within the standard steep slope buffer. Restoration will involve the enhancement of 4,570 square feet

of the site through the planting of native vegetation within the steep slope critical area buffer. The planting layout incorporates a diversity of native plant species. Proposed plantings include trees, shrubs, and groundcover. A monitoring and maintenance plan for the proposed mitigation is also included in this report. Overall, a net gain in critical area buffer functions is proposed. Therefore, modification of the on-site critical area buffer, and subsequent restoration, will provide a substantially higher level of protection than provided through the application of the regulations of LUC 20.25H. [See also Table 2]

6. *A discussion of the performance standards applicable to the critical area and proposed activity pursuant to LUC 20.25H.160, and recommendation for additional or modified performance standards, if any.*

There is no identified habitat for species of local importance on the project parcels (see Section 2).

7. *A discussion of the mitigation requirements applicable to the proposal pursuant to LUC 20.25H.210, and a recommendation for additional or modified mitigation, if any.*

The proposed restoration plan has been developed in accordance with the standards of LUC 20.25H.210 through 20.25H.225. The project applicant proceeded through the design of the proposed project by first attempting to avoid impacts to the on-site critical areas and buffers. Avoidance of impacts to the critical area was achieved. However, because strict application of LUC 20.25H would result in both an insufficient rear yard and a continuation of the degraded buffer condition, the applicant proceeded with an alternative design that provides for larger yard areas while significantly enhancing the critical area buffer. A monitoring and maintenance plan for the proposed restoration area has also been prepared and is included in this report. The plan includes the components required by LUC 20.25H.220.

To allow a steep slope critical area buffer modification through an approved critical areas report, the Director must also find compliance with the decision criteria established in LUC 20.25H.255(A) and (B). Compliance with the relevant sections listed in LUC 20.25H.255(A) and (B) is addressed below.

1. *The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code.*

A restoration plan that details the areas proposed for restoration as a result of the critical area buffer modification has been prepared. The plan mitigates for the proposed yard areas within portions of the steep slope

critical area buffer. Restoration will involve the planting of native vegetation (trees, shrubs, and groundcover) within the critical area buffer. The overall planting layout incorporates a diversity of native plant species.

Within the buffer, proposed native plantings will increase species diversity, providing a variety of foraging resources for wildlife. An increase in structural diversity over existing conditions will also result, providing more suitable year-round cover conditions for wildlife, particularly songbirds. The proposed native plantings will also maintain stormwater functions above the slope, allowing filtration of stormwater and by helping to remove pollutants from stormwater entering the slope.

Overall, the restoration plan will provide for substantially improved critical area and buffer functions and values relative to the existing condition. The monitoring and maintenance plan will ensure long-term success of the mitigation. [See also Table 2.]

2. *Adequate resources to ensure completion of any required mitigation and monitoring efforts.*

A comprehensive five-year maintenance and monitoring plan is included in this report (Section 7). The plan specifies appropriate species for planting and planting techniques, describes proper maintenance activities, and sets forth performance standards to be met yearly during monitoring. This will ensure that restoration plantings will be maintained, monitored, and successfully established within the first five years following implementation. Furthermore, to ensure that the proposed plantings are installed and that the five-year maintenance and monitoring plan is implemented, the applicant will post an Installation Assurance Device and a Maintenance Assurance Device prior to building permit issuance.

3. *The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site.*

Restoration of significant portions of the on-site steep slope buffer will provide maintained water quality, improved erosion control, and slope stability. Substantial portions of the steep slope buffer are currently dominated by English ivy and Himalayan blackberry monocultures. English ivy creates a dense, shallow root system that does little to reduce the probability of landslides. Himalayan blackberry excludes the establishment of trees and shrubs that provide deep root systems and absorb/slow precipitation, thus reducing erosion potential. The native trees and shrubs included in the restoration plan will provide a more complex and deeper

root system, improving slope stabilization. The coniferous trees, in particular, will reduce the potential for heavy precipitation to cause erosion on the hillside by capturing substantial amounts of rainfall before reaching the ground surface. The dense vegetation will also help to reduce storm water velocities and filter associated sediments, improving water quality. Furthermore, restoration of the on-site slope buffer will increase the overall habitat function of the area, thereby improving habitat functions on adjacent properties.

4. *The resulting development is compatible with other uses and development in the same land use district.*

The proposed single-family residence will be compatible with adjacent properties and surrounding development within the same land use district (Single Family R-3.5). Adjacent properties also contain single-family land uses, all of a similar size.

1. *The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions.*

See preceding paragraphs and Section 5.

2. *The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist.*

The most significant function provided by the vegetation and condition of steep slopes and their associated buffer is the protection of slope stability and reduction of erosion potential. Much of the existing steep slope buffer is sparsely vegetated and includes dense patches of English ivy and Himalayan blackberry. The shallow root systems of English ivy and Himalayan blackberry do not sufficiently maintain slope stability, and the dense mat created by the ivy can serve to hide potential erosion problems. Himalayan blackberry monocultures exclude the establishment of trees and shrubs that provide deeper root systems that help anchor steep slopes and the buffer area above. With the implementation of the proposed restoration plan, a combination of trees and shrubs on the steep slope buffer will provide deeper and stronger root systems, increasing slope stability.

3. *The proposal includes a net gain in stormwater water quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer.*

The proposed native plantings will improve stormwater functions adjacent to and within the slope, allowing filtration of stormwater and by helping to remove pollutants from stormwater on the slope. Overall, a net gain in stormwater quality function is proposed.

Modification of a critical area buffer requires the applicant to apply for and receive a Critical Areas Land Use Permit. Before issuing a Critical Areas Land Use Permit, the Director must find that the project meets specific decision criteria. Compliance with the applicable Critical Areas Land Use Permit decision criteria listed in LUC 20.30P.140 is addressed below.

- A. *The proposal obtains all other permits required by the Land Use Code.*

The project applicant has applied for a Critical Areas Land Use Permit (LO) to modify the on-site steep slope critical area buffer. No other City of Bellevue land use permits will be required of the project at this time. A Building Permit will be applied for after approval of the LO.

- B. *The proposal utilizes to the maximum extent possible the best available construction, design and development techniques, which result in the least impact on the critical area and critical area buffer.*

As mitigation for impacts associated with the buffer modification, the existing degraded steep slope critical area buffer will be restored. The applicant has used the best available design and development techniques to design the new residences. The design allows for continuity with the surrounding neighborhood while providing adequate area for buffer enhancement. No impacts to the steep slope will occur.

- C. *The proposal incorporates the performance standards of Part 20.25H LUC to the maximum extent applicable.*

See below for steep slope performance standard compliance (per LUC 20.25H.125).

- D. *The proposal will be served by adequate public facilities including streets, fire protection, and utilities.*

The proposed project will be served by adequate public facilities. No new streets will be needed to serve the parcels and each lot will utilize existing available utilities. Additionally, fire and police protection are currently available.

- E. *The proposal includes a mitigation or restoration plan consistent with the requirements of LUC 20.25H.210; except that a proposal to modify or remove vegetation pursuant to an approved Vegetation Management Plan under LUC 20.25H.055.C.3.i shall not require a mitigation or restoration plan.*

A mitigation and restoration plan has been prepared in accordance with the requirements of LUC 20.25H.210. See Section 7 and Appendix A.

- F. *The proposal complies with other applicable requirements of this code.*

The proposed project complies with all other applicable City of Bellevue Land Use Codes.

Modification of a geologic hazard area buffer requires the applicant to show compliance with the specific performance standards for steep slopes as set forth in LUC 20.25H.125. Compliance with the applicable criteria listed in LUC 20.25H.125 is addressed below.

- A. *Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;*

See GeoResources, LLC geotechnical report.

- B. *Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;*

See GeoResources, LLC geotechnical report.

- C. *The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;*

See GeoResources, LLC geotechnical report.

- D. *The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall;*

See GeoResources, LLC geotechnical report.

- E. *Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;*

See GeoResources, LLC geotechnical report. In addition, a net reduction in impervious surfaces within the standard buffer will occur.

- F. *Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;*

See GeoResources, LLC geotechnical report.

- G. *Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;*

See GeoResources, LLC geotechnical report.

- H. *On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;*

See GeoResources, LLC geotechnical report.

- I. *On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and*

See GeoResources, LLC geotechnical report.

- J. *Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC [20.25H.210](#).*

See GeoResources, LLC geotechnical report. In addition, a restoration plan has been developed, pursuant to LUC 20.25H.120, and is included in Appendix A. The plan will mitigate for areas of buffer reduction and restore areas of temporary buffer disturbance.

Finally, modifications to steep slope buffers can only be approved if the Director determines that compliance with LUC 20.25H.145 has occurred. Compliance with the applicable decision criteria listed in LUC 20.25H.145 is addressed below.

- A. *Will not increase the threat of the geological hazard to adjacent properties over conditions that would exist if the provisions of this part were not modified;*

See GeoResources, LLC geotechnical report.

- B. *Will not adversely impact other critical areas;*

See GeoResources, LLC geotechnical report.

- C. *Is designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than would exist if the provisions of this part were not modified;*

See GeoResources, LLC geotechnical report.

- D. *Is certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington;*

See GeoResources, LLC geotechnical report.

- E. *The applicant provides a geotechnical report prepared by a qualified professional demonstrating that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures. Geotechnical reporting standards shall comply with requirements developed by the Director in City of Bellevue Submittal Requirements Sheet 25, Geotechnical Report and Stability Analysis Requirements, now or as hereafter amended;*

See GeoResources, LLC geotechnical report.

- F. *Any modification complies with recommendations of the geotechnical support with respect to best management practices, construction techniques or other recommendations; and*

See GeoResources, LLC geotechnical report.

- G. *The proposed modification to the critical area or critical area buffer with any associated mitigation does not significantly impact habitat associated with species of local importance, or such habitat that could reasonably be expected to exist during the anticipated life of the development proposal if the area were regulated under this part.*

There is no identified habitat for species of local importance on the project parcels (see Section 2). Proposed buffer reduction, combined with native restoration, will result in an overall lift in habitat function (see Table 2).

7 RESTORATION PLAN

This plan has been prepared as mitigation for the reduction of the standard 50-foot steep slope buffer on two adjoining residential properties in Bellevue (Parcels #8056000090 & 8056000085). The buffer reduction is necessary to accommodate yard areas associated

with two proposed single-family residences. An existing single-family residence and an associated garage, which are currently located within approximately 20 feet of the top of the steep slope will be removed, and the new residences will be placed approximately 20 feet farther from the top of the slope. While the structures can be constructed almost entirely outside of the standard buffer, the configuration leaves little area for a rear yard. This proposal will reduce the total buffer area from 18,377 square feet to 14,031 square feet, for a net reduction of 4,346 square feet of buffer area. To offset the reduction in the standard buffer, 4,570 square feet of degraded steep slope buffer will be enhanced, a ratio of 1.05:1.

Enhancement of the reduced buffer will include removal of 1,233 square feet of existing structures in the buffer; decompaction and removal of an existing footpath in the buffer; removal of non-native ornamental trees and invasive species monocultures, specifically Himalayan blackberry and English ivy; and the installation of a native tree and shrub community.

Work Sequence (see Materials for items in BOLD)

A **restoration specialist** shall make site visits to verify the following project milestones:

1. Mark the clearing limits with high visibility fencing or similar means.
2. Install erosion control measures (compost sock) per the detail on Page W3.
3. Clear all invasive and non-native, ornamental plants and any debris or structures to be removed per the plans and details on Page W3.
4. Replace any soil lost through debris or plant removal with **approved topsoil** so that grades are consistent with adjacent areas and there are no divots.
5. Decomcompact soils in Area 1 per the details on Page W3.
6. Place two inches of **compost** over entire planting area. Quantity required: 28 cubic yards.
7. Place four inches of **woodchip mulch** over the entire planting area: Quantity required: 56 cubic yards
8. Place large woody debris salvaged from onsite clearing (exclusively) in the restoration area as directed by the **restoration specialist**.
9. Install native plants per planting detail on Page W4.
 - a. Native plant installation shall occur during the dormant season (October 15th through March 1st) in frost-free periods only.
 - b. Layout plant material per plan for inspection by the **restoration specialist**. Plant substitutions will not be allowed without prior approval of the **restoration specialist**.
 - c. Install plants per planting detail
10. Water each plant thoroughly to remove air pockets.
11. Install a temporary irrigation system capable of supplying at least 1-inch of water per week to the entire planted area.
12. One year after initial planting, apply a slow-release, phosphorous-free, granular **fertilizer** to each installed plant.

Maintenance

The site shall be maintained for five years following successful installation.

1. Replace each plant found dead in the summer monitoring visits in the following dormant season (October 15 – March 1). Replacement shall be of the same species and size per plan unless otherwise approved by the **restoration specialist**.
2. General weeding for all planted areas
 - a. At least twice annually, remove competing grasses and weeds from around the base of each installed plant to a radius of 12 inches. Weeding should occur at least once in the spring and once in the summer. Thorough weeding will result in lower plant mortality and associated plant replacement costs.
 - b. More frequent weeding may be necessary depending on weed conditions that develop after plant installation.
 - c. Do not use string trimmers in the vicinity of installed plants, as they may damage or kill the plants.
3. Maintain a four-inch-thick layer of **woodchip mulch** across the entire planting area. Mulch should be pulled back two inches from the plant stems.
4. Inspect and repair the irrigation system as necessary each spring.

During at least the first two growing seasons, make sure that the entire planting area receives a minimum of one inch of water per week from June 1st through September 30th.

Goals

1. Maintain slope stability by establishing a tree component to the steep slope buffer in areas currently dominated by shallow-rooting invasive species.
2. Enhance 4,570 square feet of degraded steep slope buffer within the reduced buffer area.
 - a. Create a dense, native, tree and shrub community.
 - b. Remove non-native and invasive plant species from the reduced buffer area.

Performance Standards

The following performance standards will be used to gauge the success of the project over time. If all performance standards have been satisfied by the end of year five, the project shall be considered complete and the City of Bellevue shall release the performance bond.

1. Survival
 - a. Achieve 100% survival of all installed trees and shrubs by the end of year one.
 - b. Achieve 80% survival of all installed shrubs and 100% survival of all installed conifers by the end of year two.
 - c. Achieve 80% survival of all installed trees by the end of year five.

Survival standards may be achieved through establishment of planted material, recruitment of native volunteers, or replacement plants as necessary.

Survival in densely planted shrub areas is difficult to track beyond year two. Therefore a diversity standard (below) is proposed for year five.

2. Diversity
 - a. Establish at least four native shrub species in the buffer enhancement area. Establishment is defined as five or more individual plants of the same species alive and healthy.
3. Cover
 - a. Achieve 60% cover of native trees and shrubs by the end of year three.
 - b. Achieve 80% cover of native trees and shrubs by the end of year five.
 - c. No more than 10% cover by invasive species listed as Class A, B, or C by the King County Noxious Weed Control Board in any monitoring year.

Monitoring

Prior to the commencement of the monitoring phase, an as-built plan documenting the successful installation of the project will be submitted to the City of Bellevue. If necessary, the as-built report may include a mark-up of the original plan that notes any minor changes or substitutions that may occur. During the as-built inspection, the **restoration specialist** will install at least two 50-foot monitoring transects in the enhancement area. Future cover measurements will be collected along the monitoring transects using the line-intercept method. During the as-built inspection, the **restoration specialist** will establish at least four permanent photopoints.

The site will be monitored twice annually for five years beginning with approval of the as-built report. Each spring the **restoration specialist** will conduct a brief maintenance inspection followed by a memo summarizing maintenance items necessary for the upcoming growing season. The formal late-season monitoring inspection will take place once annually during late summer or early fall. During each late-season monitoring inspection, the following data will be collected:

1. Percent survival of all installed plantings, including species specific counts of installed tree plantings (for shrub plantings, years one and two only).
2. Native and invasive woody cover as determined using the line-intercept method along permanent monitoring transects.
3. Estimates of invasive herbaceous plants or groundcover.
4. The species composition, noting whether a species is native or exotic and whether plants were installed or are volunteers.
5. The general health and vigor of the installed vegetation.
6. Photographs from fixed photopoints established during the as-built inspection.
7. Any evidence of wildlife usage in the mitigation area.

Monitoring reports shall be submitted annually to the City. Reports shall document the conditions of the site, including quantitative data collected during the monitoring inspection, and shall provide maintenance recommendations that may be necessary to help the site achieve the stated performance standards.

Contingency Plan

Should any monitoring report reveal that the mitigation plan has failed in whole or in part, and should that failure be beyond the scope of routine maintenance, the applicant will submit a Contingency Plan to the City of Bellevue for approval. This plan may include replanting, soil amendments or topdressing, substitutions for species selected in the original plan, and adaptive weed control methods.

Materials

1. **Woodchip mulch:** "Arborist chips" (chipped woody material) approximately one to three inches in maximum dimension (not sawdust or hog fuel). This material is commonly available in large quantities from arborists or tree-pruning companies. This material is sold as "Animal Friendly Hog Fuel" at Pacific Topsoils [(800) 884-7645]. Mulch shall not contain appreciable quantities of garbage, plastic, metal, soil, and dimensional lumber or construction/demolition debris. APPROX. Quantity required: 54 cubic yards.
2. **Compost:** Cedar Grove Compost or equivalent "composted material" per Washington Admin. Code 173-350-220. Quantity required: 28 cubic yards
3. **Approved topsoil:** On-site soil strippings may be used as approved topsoil under the following conditions: soil shall be screened to ½" and free of weeds, sticks, seeds, clay lumps or any non-organic material. Soil must meet the following characteristics:
 - a) Compaction levels appropriate for root growth (75-85% Proctor density)
 - b) Adequate amount of organic matter (2% to 5% organic content by oven dried weight.)
 - c) Plant-appropriate soil nutrient levels and pH
 - d) Adequate drainage: Drainage rate between 1 - 5 inches per hour.If these characteristics are not met, decompact and amend with **compost** per the **restoration specialist's** recommendation.
4. **Fertilizer:** Slow-release, phosphorous-free granular fertilizer. Most commercial nurseries carry this product. Follow manufacturer's instructions for use. Keep fertilizer in weather-tight container while on-site. Fertilizer is only to be applied in years two and three, not in year one.
5. **Restoration specialist:** Qualified professional able to evaluate and monitor the construction of environmental restoration projects.

8 SUMMARY

Construction of two new single-family residences will include associated yard areas located partially within a standard steep slope buffer. The proposal includes a modification of the buffer to allow for the yard areas. No impacts to the steep slope are proposed. As mitigation for the buffer modification, the proposal includes the removal of 1,233 square feet of structural/impervious coverage within the standard buffer and a total of 4,570 square feet of buffer enhancement. Areas of enhancement will include the removal of non-native vegetation and the planting of native trees, shrubs, and groundcover in a naturalistic fashion. Native species include western red cedar, serviceberry, beaked hazelnut, osoberry, thimbleberry, red elderberry, and snowberry.

The planting layout incorporates a diversity of native plant species. The restoration plan will provide significantly better protection of those critical area functions and values than would be provided by the standard application of the geologic hazard area regulations. Therefore, an overall net gain in critical area buffer functions and values is proposed.

APPENDIX A

Restoration Plan

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	09-18-15	REVIEW SET	MSF
2	10-07-15	PERMIT SET	MSF

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

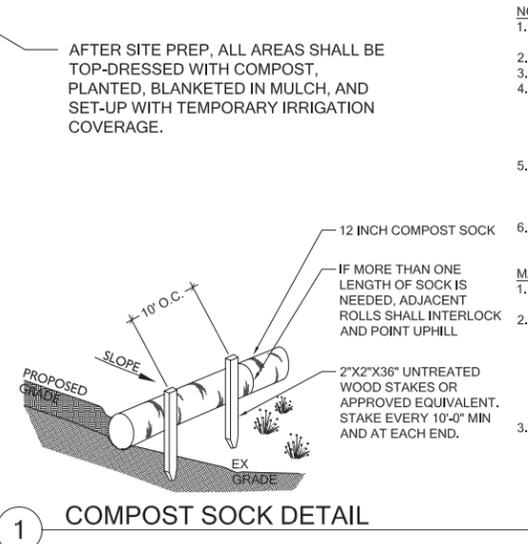
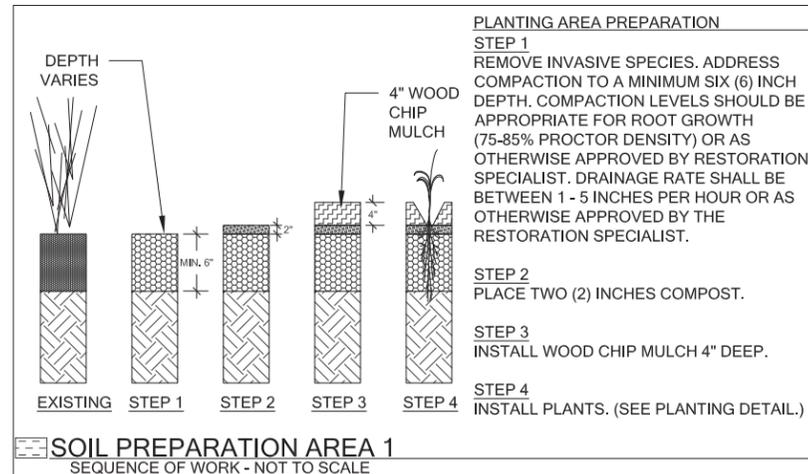
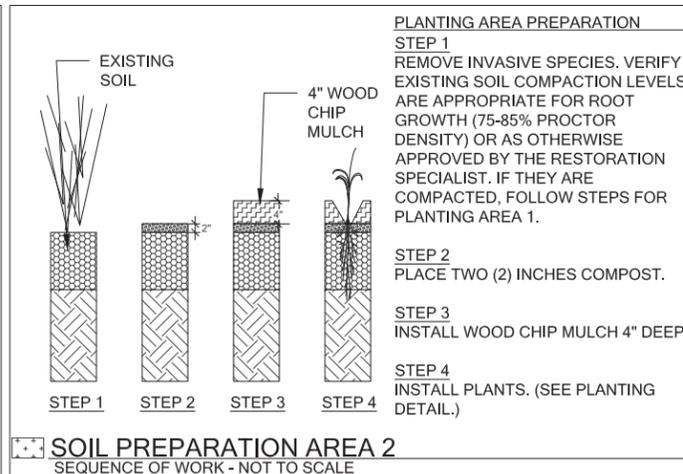
PROJECT MANAGER: KB
DESIGNED: MSF
DRAFTED: MSF
CHECKED: KB/RK
JOB NUMBER: 150637

SHEET NUMBER:
W3 OF 5

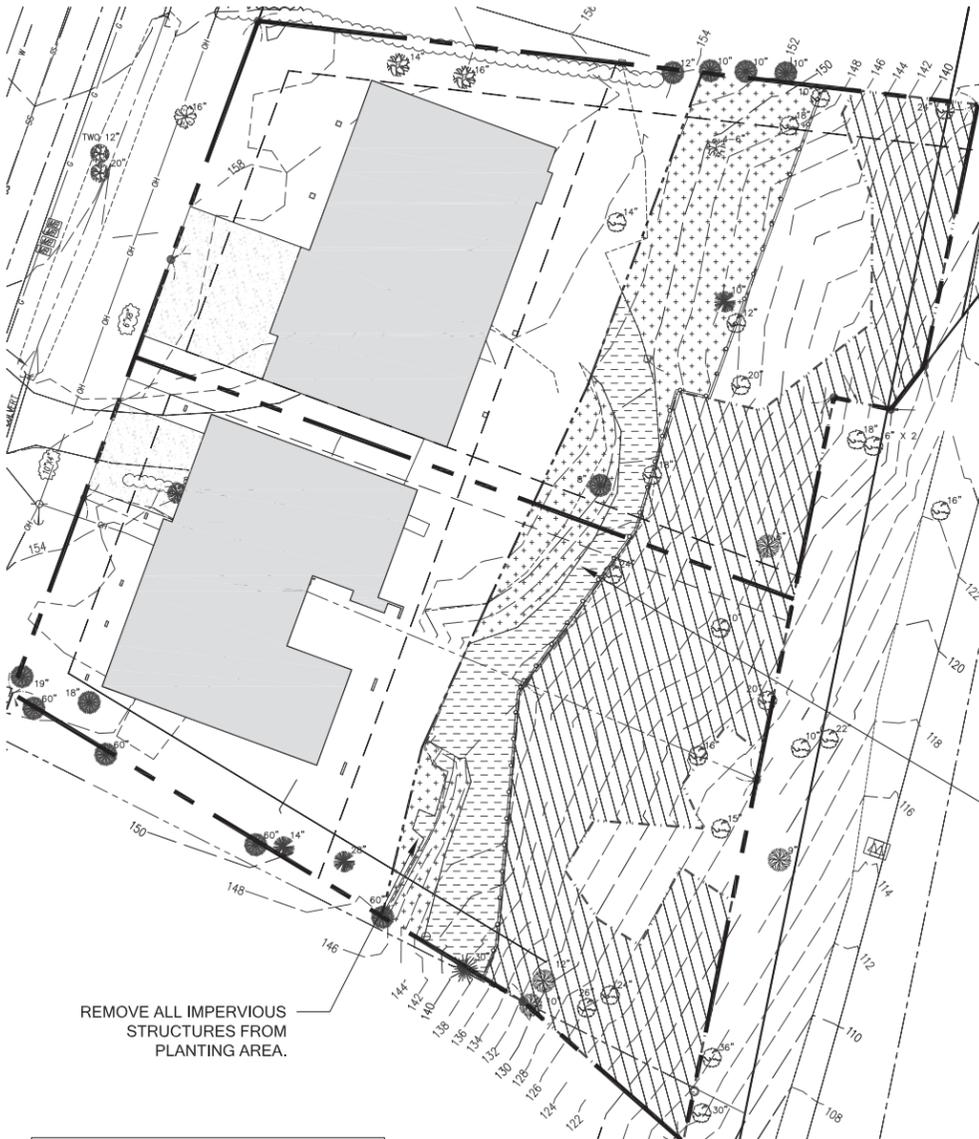
- STANDARD NOTES FOR EROSION CONTROL PLANS**
- ALL CLEARING & GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF BELLEVUE (COB) CLEARING & GRADING CODE, CLEARING & GRADING DEVELOPMENT STANDARDS, LAND USE CODE, UNIFORM BUILDING CODE, PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES, ORDINANCES, AND STANDARDS. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THESE REQUIREMENTS. ANY VARIANCE FROM ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY OF BELLEVUE DEVELOPMENT SERVICES (DSD) PRIOR TO CONSTRUCTION.
IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE COB.
 - APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
 - A COPY OF THE APPROVED PLANS AND DRAWINGS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.
 - THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
 - THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
 - THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
 - ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
 - THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
 - CLEARING SHALL BE LIMITED TO THE AREAS WITHIN THE APPROVED DISTURBANCE LIMITS. EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1ST THROUGH APRIL 30TH. FROM MAY 1ST THROUGH SEPTEMBER 30TH, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND ALSO AT THE THREAT OF RAIN.
 - AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
 - STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT.
 - THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.
 - THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
 - ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON PROPERTY WITHIN THE CITY LIMITS MUST BE DONE IN COMPLIANCE WITH A VALID CLEARING & GRADING PERMIT. LOCATIONS FOR THE MOBILIZATION AREA AND STOCKPILED MATERIAL MUST BE APPROVED BY THE CLEARING AND GRADING INSPECTOR AT LEAST 24 HOURS IN ADVANCE OF ANY STOCKPIILING.
 - THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
 - FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM 5% SLOPE, PER THE INTERNATIONAL RESIDENTIAL CODE (IRC) R401.3.

- DEMO & TESC NOTES**
- CONSTRUCTION ACCESS**
LIMIT ACCESS POINTS TO THE MITIGATION AREA. CONSULT WITH RESTORATION SPECIALIST TO ESTABLISH APPROPRIATE STAGING AREAS. CONSTRUCTION ACCESS OR STAGING SHALL AVOID AND/OR MINIMIZE DAMAGE TO EXISTING VEGETATION AND THEIR ROOT ZONES TO THE GREATEST DEGREE POSSIBLE. UPON COMPLETION, ACCESS AND STAGING AREAS SHALL BE RESTORED TO ORIGINAL CONDITION.
- CONSTRUCTION EQUIPMENT**
NEARLY THE ENTIRE MITIGATION PLANTING AREA IS LOCATED IN THE CRITICAL ROOT ZONE OF EXISTING TREES. NO CONSTRUCTION EQUIPMENT SHALL BE USED WITHIN THE MITIGATION AREA.
- OVERCLEARING**
IF CRITICAL AREA BUFFER IS OVERCLESARED, EXTEND PLANTING AREA AND REPLICATE PLANTING AREA LAYOUT AND SOIL PREPARATION SEQUENCE OF WORK.
- GENERAL SOIL PREPARATION FOLLOWING DEMO WORK**
AFTER REMOVAL OF NON-NATIVE MATERIAL AND ROUGH GRADING HAS OCCURRED, REPLACE ANY SOIL LOST THROUGH DEBRIS REMOVAL WITH APPROVED TOPSOIL SO THAT GRADES ARE CONSISTENT WITH ADJACENT AREAS AND THERE ARE NO DIVOTS. SEE STANDARD NOTE #9 THIS SHEET REGARDING EXPOSED SOILS. IF AREA IS NOT PLANTED IMMEDIATELY AFTER SOIL PREP, COVER SITE WITH WOOD CHIP MULCH BLANKET PER PLAN.
- COMPACTED SOILS IN CRITICAL ROOT ZONE**
THE EXISTING FOOTPATH IN THE MITIGATION AREA SHALL BE DECOMPACTED BEFORE PLANTING. CONTRACTOR SHALL ADDRESS COMPACTION WITH A METHOD APPROVED BY THE RESTORATION SPECIALIST SUCH AS CORE AERATION, VERTICAL MULCHING, OR AIR EXCAVATION. DECOMPACTION SHALL BE TO A MINIMUM SIX (6) INCH DEPTH.

- NOXIOUS WEED REMOVAL & CONTROL**
- REMOVE ENGLISH IVY:**
- PHYSICALLY REMOVE ALL ENGLISH IVY VINES AND ROOTS FROM THE PLANTING AREA.
 - IVY CAN RESPROUT FROM BELOW-GROUND PORTIONS, SO ALL ROOTS SHALL BE GRUBBED OUT. AROUND SIGNIFICANT VEGETATION TO REMAIN, IVY SHALL BE GRUBBED OUT BY HAND TO MINIMIZE DISRUPTION TO ADJACENT ROOTS.
 - IVY SHALL BE CUT AROUND THE BASE OF EACH TREE, TO PREVENT THE IVY FROM GIRDLING THE TREES. REMOVE STANDING VINES FROM THE FIRST 8' OF EVERY TREE TRUNK THAT CONTAINS ANY IVY.
 - AFTER IVY HAS BEEN REMOVED, AREA SHOULD BE MULCHED AND OR PLANTED PER PLAN.
 - DISPOSE OF REMOVED MATERIAL OFF SITE.
- REMOVE HIMALAYAN/EVERGREEN BLACKBERRY:**
- CUT ABOVE GROUND PORTION OF BLACKBERRY AND REMOVE OFFSITE. ENSURE THAT NO NATIVE PLANTS ARE REMOVED.
 - CANES SHALL BE REMOVED FROM CANOPY OF TREES TO REMAIN TO THE EXTENT FEASIBLE AS DETERMINED BY THE RESTORATION SPECIALIST.
 - DIG UP OR PULL THE REMAINING ROOT BALL. ENSURE THAT NO NATIVE PLANT ROOTS ARE DAMAGED.
 - REPLACE ANY DIVOTS CREATED WHEN REMOVING THE PLANT WITH APPROVED TOPSOIL.
 - ALL CANES SHALL BE CUT BACK AND REMOVED WITHIN THE TEN (10) FEET ADJACENT TO THE PLANTING AREA, INCLUDING TREE CANOPY. CANES SHALL BE PULLED AND REMOVED OFF-SITE.
 - REVEGETATE PER PLANTING PLAN. COVER WITH WOOD CHIP MULCH FOUR INCHES DEEP.
 - MONITOR SITE THROUGHOUT GROWING SEASON FOR EMERGING CANES AND GRUB OUT AND REMOVE ANY NEW PLANTS. CONTINUE TO CUT BACK CANES TEN (10) FEET FROM THE PLANTING AREA.



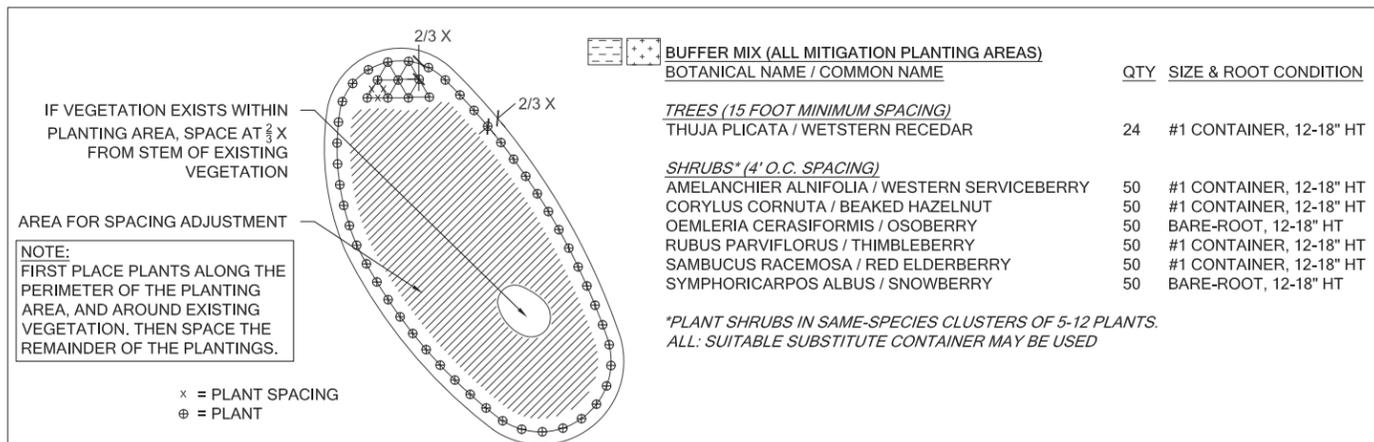
AFTER SITE PREP, ALL AREAS SHALL BE TOP-DRESSED WITH COMPOST, PLANTED, BLANKETED IN MULCH, AND SET-UP WITH TEMPORARY IRRIGATION COVERAGE.



- LEGEND**
- WIDELINEATED STEEP SLOPE AREA (DOWNSLOPE CLEARING LIMIT)
 - DASHED LINE REDUCED STEEP SLOPE BUFFER (UPSLOPE CLEARING LIMIT)
 - SOLID LINE SOIL PREPARATION AREA 1
 - DOTTED LINE SOIL PREPARATION AREA 2
 - CIRCLE WITH CROSS COMPOST SOCK, SEE DETAIL

PLANTING AREA PREPARATION AND TESC PLAN AND NOTES





PLANTING AREA TYPICAL LAYOUT, TYPICAL SPACING, & SCHEDULE

PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

QUALITY ASSURANCE

- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
- PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
- TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
- NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC.; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
- SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION SPECIALIST.
- IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE SPECIALIST AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION

- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION SPECIALIST FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.

- PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
- THE RESTORATION SPECIALIST MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION SPECIALIST MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

SUBMITTALS

PROPOSED PLANT SOURCES

- WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES

- PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO SPECIALIST AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH SPECIALIST AT TIME OF SUBMISSION.
- HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION

CONTRACTOR MUST NOTIFY SPECIALIST 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT SPECIALIST MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS

- TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE

- SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.

- HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.

- LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY
PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT

- PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE SPECIALIST'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

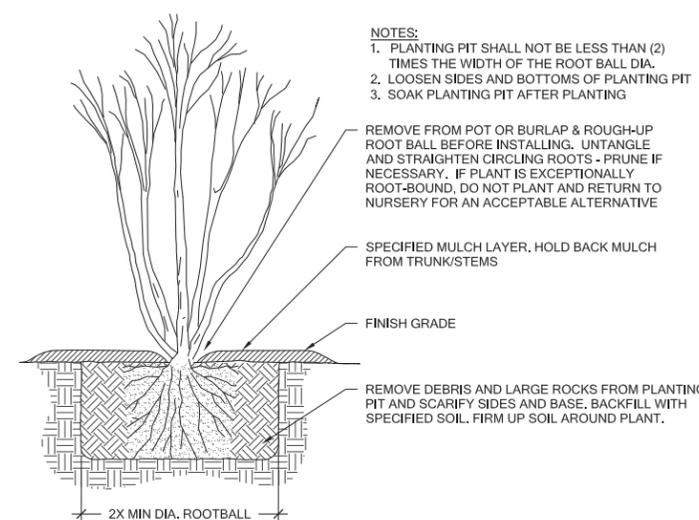
- GENERAL**
- PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
 - PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

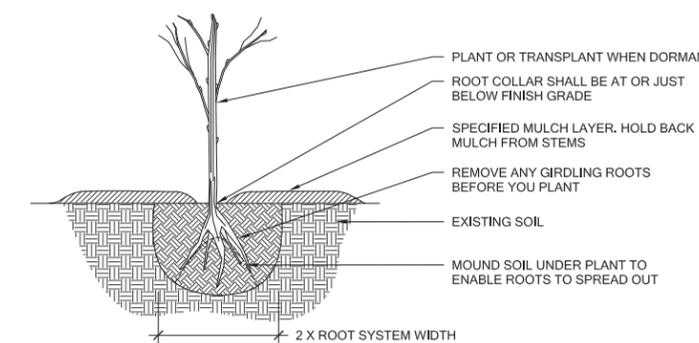
ROOT TREATMENT

- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.



1 CONTAINER PLANTING
Scale: NTS

- NOTES:**
- UNPACK BARE ROOT PLANTS REMOVING ALL PACKAGING AND CAREFULLY UNTANGLING THE ROOTS. DO NOT ALLOW ROOTS TO DRY OUT. DISCARD UNHEALTHY PLANTS: DARK MOLDS, SERIOUSLY DAMAGED ROOTS OR SHOOTS, OR WRINKLED, WATER-SOAKED BARK.
 - DIG HOLE WIDE ENOUGH TO ACCEPT ALL ROOTS.
 - INSTALL BARE ROOT UPRIGHT AND AT THE SAME DEPTH AS IT STOOD IN THE NURSERY/FIELD.
 - PARTIALLY FILL THE HOLE AND LIGHTLY FIRM UP SOIL AROUND THE LOWER ROOTS.
 - SHOVEL IN REMAINING SOIL SO THAT IT IS FIRMLY BUT NOT TIGHTLY PACKED.
 - THOROUGHLY WATER AFTER PLANTING AND BEFORE MULCHING. IF SETTLING OCCURS, ADD MORE SOIL AND WATER.



2 BARE ROOT PLANTING
Scale: NTS

BDR FINE HOMES
MITIGATION PLAN
PREPARED FOR BDR HOLDINGS, LLC
SITE ADDRESS:
106 97TH AVE NE - PARCELS 8056600090 & 8056600085
BELLEVUE, WA 98004

SUBMITTALS & REVISIONS		NO.	DATE	DESCRIPTION	BY
	REVIEW SET	1	09-18-15		MSF
	PERMIT SET	2	10-07-15		MSF

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: KB
DESIGNED: KB
DRAFTED: MSF
CHECKED: KB/RK
JOB NUMBER: 150637
SHEET NUMBER: W4 OF 5

PLANT INSTALLATION TYPICAL LAYOUT, DETAILS AND SPECIFICATIONS

SCALE AS NOTED

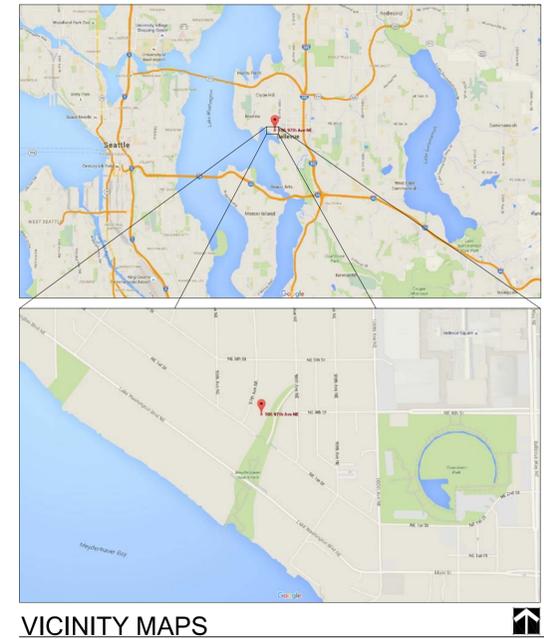
BDR FINE HOMES MITIGATION PLAN



750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

Science & Design



VICINITY MAPS

BDR FINE HOMES

MITIGATION PLAN

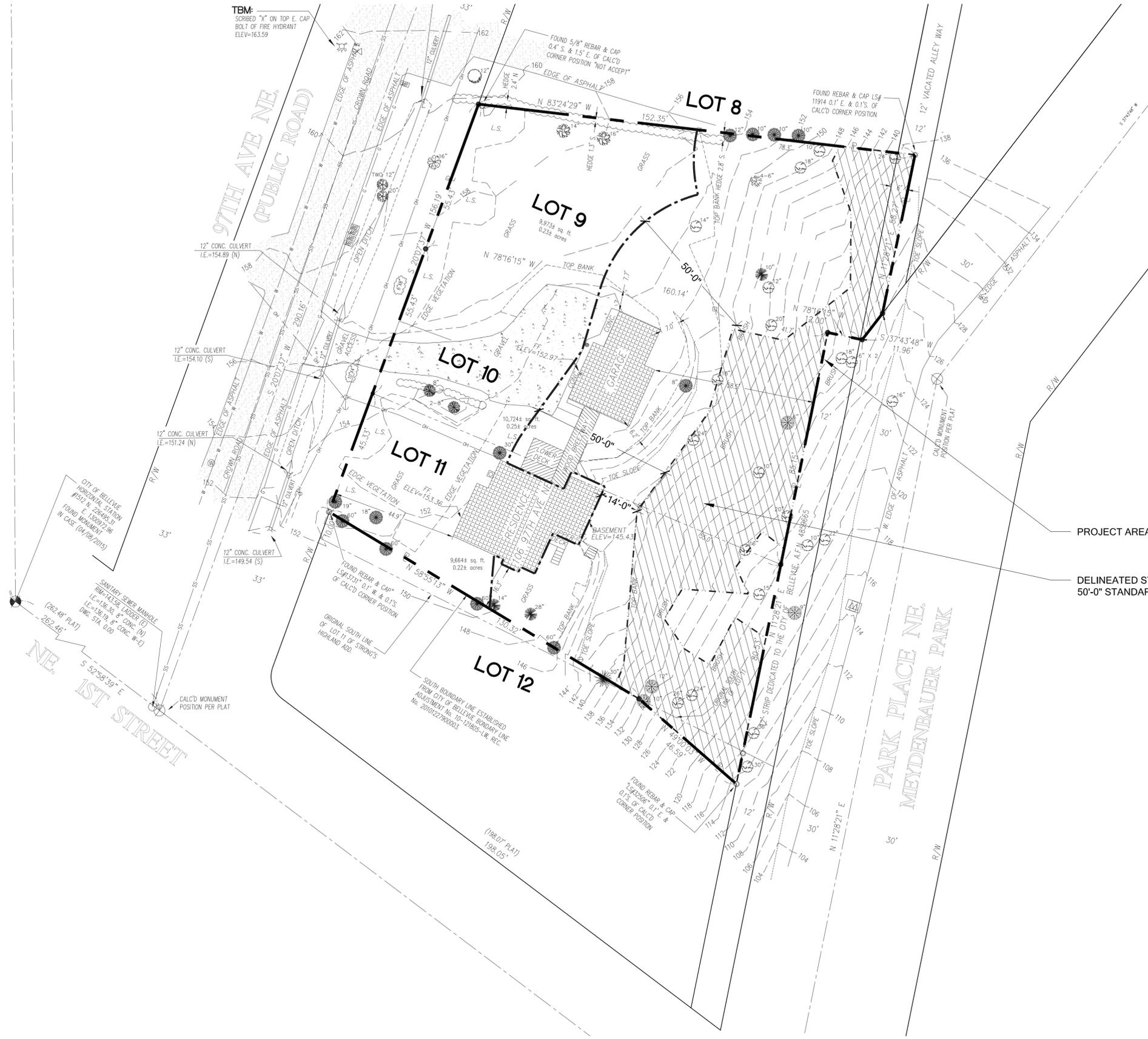
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DESIGNED: 1
DRAFTED: MSF
CHECKED: KB/RK
JOB NUMBER: 150637
SHEET NUMBER: W1 OF 5



PROJECT AREA

DELINEATED STEEP SLOPE AREA
50'-0" STANDARD BUFFER

LEGEND

	DELINEATED STEEP SLOPE AREA
	STANDARD STEEP SLOPE BUFFER

SHEET INDEX

W1	EXISTING CONDITIONS
W2	PROPOSED BUFFER REDUCTION PLAN AND SECTION
W3	PLANTING AREA PREPARATION AND TESC PLAN AND NOTES
W4	PLANT INSTALLATION TYPICAL LAYOUT, DETAILS AND SPECIFICATIONS
W5	MITIGATION NOTES

NOTES

1. STEEP SLOPE BOUNDARY DELINEATED BY GEORESOURCES, LLC IN MAY 2015.
2. SURVEY ON APRIL 9, 2015 RECEIVED FROM PRIZM SURVEYING INC., TACOMA, WA, 253-404-0983.

EXISTING CONDITIONS



BDR FINE HOMES
MITIGATION PLAN
PREPARED FOR BDR HOLDINGS, LLC
SITE ADDRESS:
106 97TH AVE NE - PARCELS 8056600090 & 8056600085
BELLEVUE, WA 98004

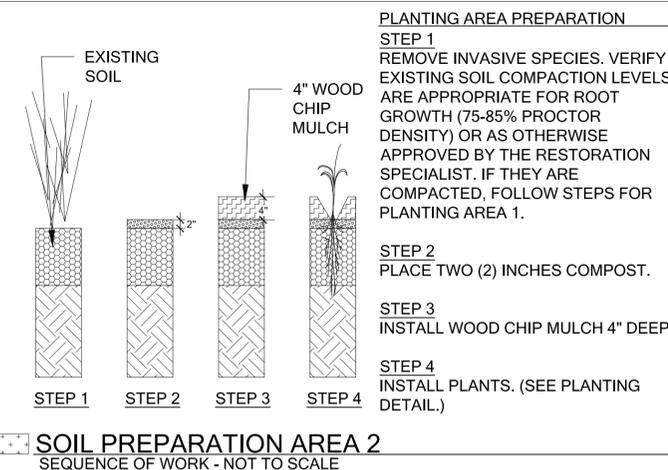
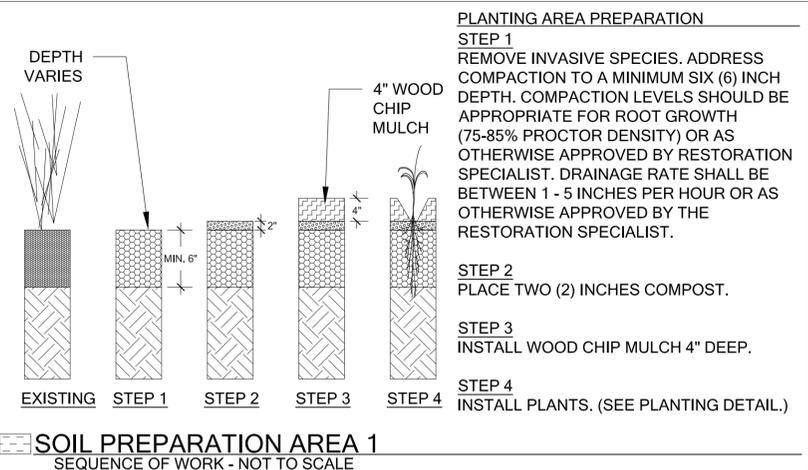
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PROJECT MANAGER: KB
DESIGNED: MSF
DRAFTED: MSF
CHECKED: KB/RK
JOB NUMBER: 150637
SHEET NUMBER: **W3 OF 5**

STANDARD NOTES FOR EROSION CONTROL PLANS

- ALL CLEARING & GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF BELLEVUE (COB) CLEARING & GRADING CODE, CLEARING & GRADING DEVELOPMENT STANDARDS, LAND USE CODE, UNIFORM BUILDING CODE, PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES, ORDINANCES, AND STANDARDS. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THESE REQUIREMENTS. ANY VARIANCE FROM ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY OF BELLEVUE DEVELOPMENT SERVICES (DSD) PRIOR TO CONSTRUCTION.
IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE COB.
- APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- A COPY OF THE APPROVED PLANS AND DRAWINGS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- CLEARING SHALL BE LIMITED TO THE AREAS WITHIN THE APPROVED DISTURBANCE LIMITS. EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1ST THROUGH APRIL 30TH. FROM MAY 1ST THROUGH SEPTEMBER 30TH, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND ALSO AT THE THREAT OF RAIN.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT.
- THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON PROPERTY WITHIN THE CITY LIMITS MUST BE DONE IN COMPLIANCE WITH A VALID CLEARING & GRADING PERMIT. LOCATIONS FOR THE MOBILIZATION AREA AND STOCKPILED MATERIAL MUST BE APPROVED BY THE CLEARING AND GRADING INSPECTOR AT LEAST 24 HOURS IN ADVANCE OF ANY STOCKPILING.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
- FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM 5% SLOPE, PER THE INTERNATIONAL RESIDENTIAL CODE (IRC) R401.3.



DEMO & TESC NOTES

CONSTRUCTION ACCESS
LIMIT ACCESS POINTS TO THE MITIGATION AREA. CONSULT WITH RESTORATION SPECIALIST TO ESTABLISH APPROPRIATE STAGING AREAS. CONSTRUCTION ACCESS OR STAGING SHALL AVOID AND/OR MINIMIZE DAMAGE TO EXISTING VEGETATION AND THEIR ROOT ZONES TO THE GREATEST DEGREE POSSIBLE. UPON COMPLETION, ACCESS AND STAGING AREAS SHALL BE RESTORED TO ORIGINAL CONDITION.

CONSTRUCTION EQUIPMENT
NEARLY THE ENTIRE MITIGATION PLANTING AREA IS LOCATED IN THE CRITICAL ROOT ZONE OF EXISTING TREES. NO CONSTRUCTION EQUIPMENT SHALL BE USED WITHIN THE MITIGATION AREA.

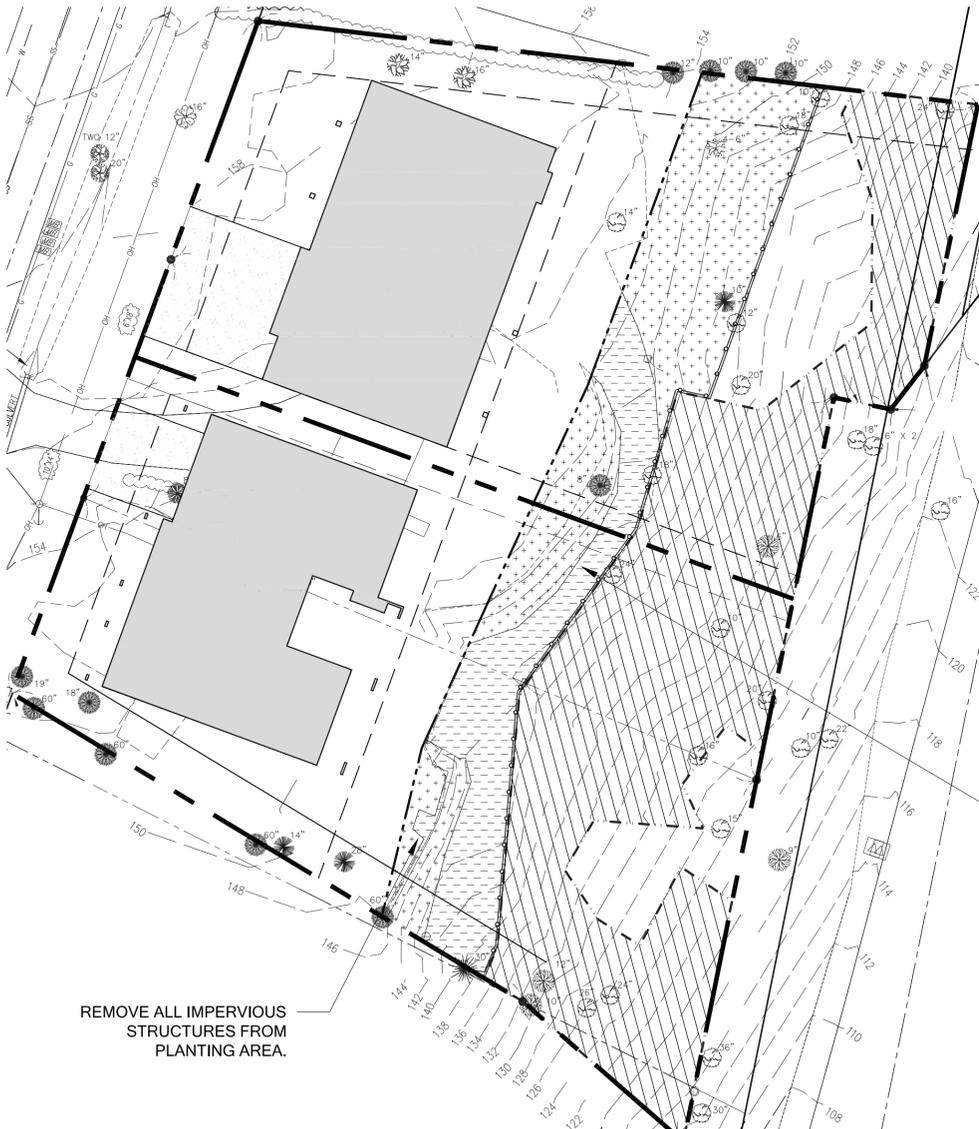
OVERCLEARING
IF CRITICAL AREA BUFFER IS OVERCLESARED, EXTEND PLANTING AREA AND REPLICATE PLANTING AREA LAYOUT AND SOIL PREPARATION SEQUENCE OF WORK.

GENERAL SOIL PREPARATION FOLLOWING DEMO WORK
AFTER REMOVAL OF NON-NATIVE MATERIAL AND ROUGH GRADING HAS OCCURRED, REPLACE ANY SOIL LOST THROUGH DEBRIS REMOVAL WITH APPROVED TOPSOIL SO THAT GRADES ARE CONSISTENT WITH ADJACENT AREAS AND THERE ARE NO DIVOTS. SEE STANDARD NOTE #9 THIS SHEET REGARDING EXPOSED SOILS. IF AREA IS NOT PLANTED IMMEDIATELY AFTER SOIL PREP, COVER SITE WITH WOOD CHIP MULCH BLANKET PER PLAN.

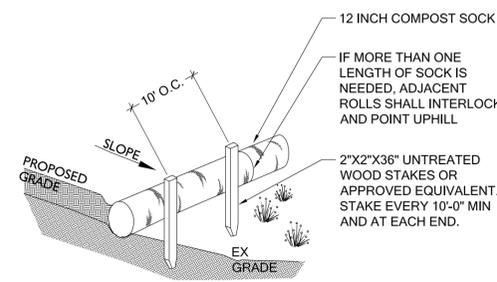
COMPACTED SOILS IN CRITICAL ROOT ZONE
THE EXISTING FOOTPATH IN THE MITIGATION AREA SHALL BE DECOMPACTED BEFORE PLANTING. CONTRACTOR SHALL ADDRESS COMPACTION WITH A METHOD APPROVED BY THE RESTORATION SPECIALIST SUCH AS CORE AERATION, VERTICAL MULCHING, OR AIR EXCAVATION. DECOMPACTION SHALL BE TO A MINIMUM SIX (6) INCH DEPTH.

NOXIOUS WEED REMOVAL & CONTROL

- REMOVE ENGLISH IVY:**
- PHYSICALLY REMOVE ALL ENGLISH IVY VINES AND ROOTS FROM THE PLANTING AREA.
 - IVY CAN RESPROUT FROM BELOW-GROUND PORTIONS, SO ALL ROOTS SHALL BE GRUBBED OUT. AROUND SIGNIFICANT VEGETATION TO REMAIN, IVY SHALL BE GRUBBED OUT BY HAND TO MINIMIZE DISRUPTION TO ADJACENT ROOTS.
 - IVY SHALL BE CUT AROUND THE BASE OF EACH TREE, TO PREVENT THE IVY FROM GIRDLING THE TREES. REMOVE STANDING VINES FROM THE FIRST 8' OF EVERY TREE TRUNK THAT CONTAINS ANY IVY.
 - AFTER IVY HAS BEEN REMOVED, AREA SHOULD BE MULCHED AND OR PLANTED PER PLAN.
 - DISPOSE OF REMOVED MATERIAL OFF SITE.
- REMOVE HIMALAYAN/EVERGREEN BLACKBERRY:**
- CUT ABOVE GROUND PORTION OF BLACKBERRY AND REMOVE OFFSITE. ENSURE THAT NO NATIVE PLANTS ARE REMOVED.
 - CANES SHALL BE REMOVED FROM CANOPY OF TREES TO REMAIN TO THE EXTENT FEASIBLE AS DETERMINED BY THE RESTORATION SPECIALIST.
 - DIG UP OR PULL THE REMAINING ROOT BALL. ENSURE THAT NO NATIVE PLANT ROOTS ARE DAMAGED.
 - REPLACE ANY DIVOTS CREATED WHEN REMOVING THE PLANT WITH APPROVED TOPSOIL.
 - ALL CANES SHALL BE CUT BACK AND REMOVED WITHIN THE TEN (10) FEET ADJACENT TO THE PLANTING AREA, INCLUDING TREE CANOPY. CANES SHALL BE PULLED AND REMOVED OFF-SITE.
 - REVEGETATE PER PLANTING PLAN. COVER WITH WOOD CHIP MULCH FOUR INCHES DEEP.
 - MONITOR SITE THROUGHOUT GROWING SEASON FOR EMERGING CANES AND GRUB OUT AND REMOVE ANY NEW PLANTS. CONTINUE TO CUT BACK CANES TEN (10) FEET FROM THE PLANTING AREA.



AFTER SITE PREP, ALL AREAS SHALL BE TOP-DRESSED WITH COMPOST, PLANTED, BLANKETED IN MULCH, AND SET-UP WITH TEMPORARY IRRIGATION COVERAGE.



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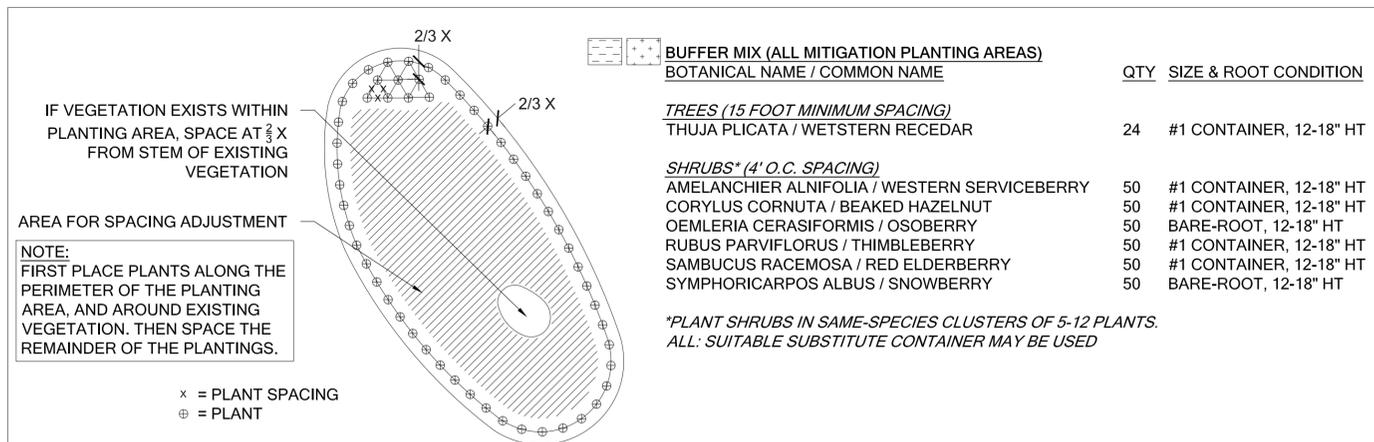
- FILL SOCK WITH "COMPOSTED MATERIAL" PER WAC 173-350-220. BIODEGRADABLE MESH NETTING IS PREFERRED.
 - PLACE COMPOST SOCK ALONG A CONTOUR PERPENDICULAR TO SHEET FLOW.
 - NO TRENCHING IS REQUIRED, DO NOT DISTURB SOIL.
 - ANCHORING: PLACE STAKES ON THE DOWNSLOPE SIDE OF THE SOCK OR THROUGH THE CENTER OF THE SOCK. THE SOCK ENDS SHOULD BE STAKED AND DIRECTED UPSLOPE TO PREVENT WATER FROM RUNNING AROUND THE END OF THE SOCK. IF STAKING IS NOT POSSIBLE, RESTORATION CONSULTANT SHALL APPROVE AN ALTERNATIVE MEANS OF STABILIZATION.
 - HEAVY VEGETATION AND EXTREMELY UNEVEN SURFACES SHOULD BE AVOIDED TO ENSURE THAT THE COMPOST FILTER SOCK UNIFORMLY CONTACTS THE GROUND SURFACE. PLACEMENT MAY BE MODIFIED FROM THE PLAN WITH APPROVAL FROM THE RESTORATION CONSULTANT.
 - LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE SOCK TO FILL THE SEAM BETWEEN THE SOIL SURFACE AND THE SOCK.
- MAINTENANCE STANDARDS:**
- INSPECT SOCKS REGULARLY, AND AFTER EACH RAINFALL EVENT, TO ENSURE THEY ARE INTACT AND THE AREA BEHIND THE SOCK IS NOT FILLED WITH SEDIMENT.
 - IF THERE IS EXCESSIVE PONDING BEHIND THE SOCK OR ACCUMULATED SEDIMENTS REACH THE TOP OF THE SOCK, NOTIFY THE RESTORATION CONSULTANT TO VERIFY WHETHER:
 - AN ADDITIONAL SOCK SHOULD BE ADDED ON TOP OR IN FRONT OF THE EXISTING SOCK IN THESE AREAS, WITHOUT DISTURBING THE ACCUMULATED SEDIMENT, OR
 - IF SEDIMENT SHOULD BE REMOVED.
 - ONCE THE AREA HAS BEEN STABILIZED, VERIFY WITH THE RESTORATION CONSULTANT:
 - WHETHER THE SOCK IS TO BE LEFT IN PLACE OR REMOVED,
 - IF ANY SEDIMENT BUILDUP IN FRONT OF THE SOCK SHOULD BE REMOVED.
 - IF RE-VEGETATION OF SITE IS NECESSARY.

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QUALITY ASSURANCE

- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
- PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
- TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
- NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC.; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
- SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION SPECIALIST.
- IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE SPECIALIST AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION

- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION SPECIALIST FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.

- PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
- THE RESTORATION SPECIALIST MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION SPECIALIST MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

SUBMITTALS

PROPOSED PLANT SOURCES

- WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES

- PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO SPECIALIST AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH SPECIALIST AT TIME OF SUBMISSION.
- HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION

CONTRACTOR MUST NOTIFY SPECIALIST 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT SPECIALIST MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS

- TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE

ENSURED.

- SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.

- HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.

- LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY
PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT

- PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE SPECIALIST'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AFTER THE CONTRACTOR'S EXPENSE.
- PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

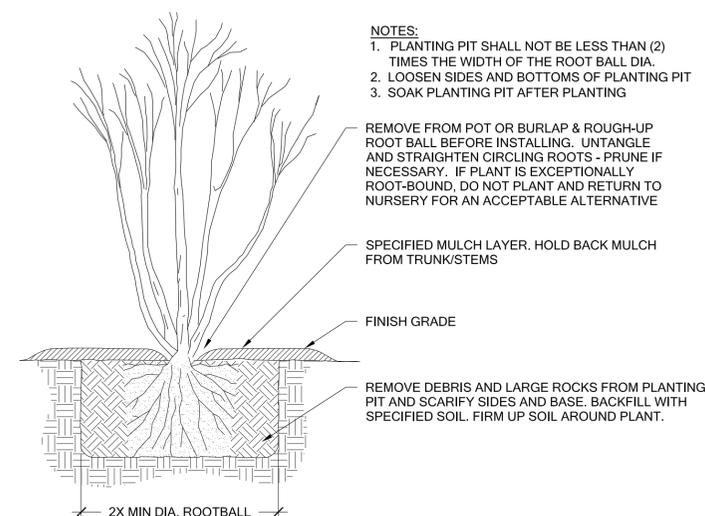
- GENERAL**
- PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
 - PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

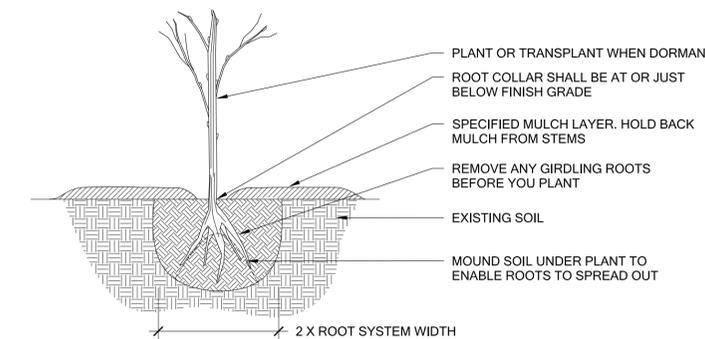
ROOT TREATMENT

- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.



1 CONTAINER PLANTING
Scale: NTS

- NOTES:**
- UNPACK BARE ROOT PLANTS REMOVING ALL PACKAGING AND CAREFULLY UNTANGLING THE ROOTS. DO NOT ALLOW ROOTS TO DRY OUT. DISCARD UNHEALTHY PLANTS: DARK MOLDS, SERIOUSLY DAMAGED ROOTS OR SHOOTS, OR WRINKLED, WATER-SOAKED BARK.
 - DIG HOLE WIDE ENOUGH TO ACCEPT ALL ROOTS.
 - INSTALL BARE ROOT UPRIGHT AND AT THE SAME DEPTH AS IT STOOD IN THE NURSERY/FIELD.
 - PARTIALLY FILL THE HOLE AND LIGHTLY FIRM UP SOIL AROUND THE LOWER ROOTS.
 - SHOVEL IN REMAINING SOIL SO THAT IT IS FIRMLY BUT NOT TIGHTLY PACKED.
 - THOROUGHLY WATER AFTER PLANTING AND BEFORE MULCHING. IF SETTLING OCCURS, ADD MORE SOIL AND WATER.



2 BARE ROOT PLANTING
Scale: NTS

BDR FINE HOMES
MITIGATION PLAN
PREPARED FOR BDR HOLDINGS, LLC
SITE ADDRESS:
106 97TH AVE NE - PARCELS 8056000090 & 8056000085
BELLEVUE, WA 98004

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY	MSF	MSF
1	09-18-15	REVIEW SET			
2	10-07-15	PERMIT SET			

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: KB
DESIGNED: MSF
DRAFTED: MSF
CHECKED: KB/RK
JOB NUMBER: 150637

SHEET NUMBER: W4 OF 5

PLANT INSTALLATION TYPICAL LAYOUT, DETAILS AND SPECIFICATIONS

SCALE AS NOTED

